JOB CHARACTERISTICS, EMOTIONAL INTELLIGENCE AND WELLNESS IN A NURSING ENVIRONMENT

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COMMENTS

The reader should keep the following in mind:

- The editorial style as well as the references referred to in this mini-dissertation follow the format prescribed by the Publication Manual (4th edition) of the American Psychological Association (APA). This practice is in line with the policy of the Programme in Industrial Psychology of North-West University to use APA in all scientific documents as from January 1999.

- The mini-dissertation is submitted in the form of a research article. The editorial style specified by the South African journal of Industrial Psychology (which agrees largely with the APA style) is used, but the APA guidelines were followed in constructing tables.

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ABSTRACT

Title: Job characteristics, emotional intelligence and wellness in a nursing environment

Key terms: Emotional intelligence, job demands, job resources, burnout, engagement, nurses

Nurses of today have many more responsibilities and duties they must cope with. With the HIV and AIDS numbers rising in South Africa it is important that the morale of nurses be kept healthy. The strain of their work environment can be hard to cope with, so it is necessary that nurses learn how to manage their emotions when working in order to avoid burnout and disengagement from happening, and to make better use of job resources.

The objective of this research is to determine the relationship between emotional intelligence, job characteristics, burnout and engagement within the nursing environment in South Africa. A cross-sectional survey design was used. A non-probability convenience sample was taken from 511 nurses in hospitals and clinics in the Gauteng- and North-West Provinces. The Emotional Intelligence Scale, Maslach Burnout Inventory – Human Services Survey, Utrecht Work Engagement Scale and Work Evaluation Scale were used as measuring instruments. Cronbach alpha coefficients, Pearson-product correlation coefficients and Spearman-product correlation coefficients were used to analyse the data.

The results showed that positive state is positively related to vigour/dedication, professional efficacy, own emotions, emotions: other and emotional management. Own emotions and emotional management also correlated positively with professional efficacy and emotions: other. Workload and communication demands are positively related to payment, emotional labour, work environment and emotional exhaustion. The results also identified emotional exhaustion and mental exhaustion to be negatively related to vigour/dedication, while emotional exhaustion is positively related to mental exhaustion, job security, and staff support. Payment correlates positively with staff support, while emotional labour and overtime are positively related to work environment. The proposed structural model show that there are clear paths between job demands and job resources; job demands, emotional intelligence and work wellness; job

resources, emotional intelligence and work wellness; job demands and burnout; and job resources and work wellness.

Recommendations were made for the nursing profession and for future research purposes.

OPSOMMING

Titel: Werkseienskappe, emosionele intelligensie en welvaart in die verpleegomgewing

Sleutelterme: Emosionele intelligensie, werkseise, werkshulpbronne, uitbranding, begeestering en verpleegsters

Verpleegsters van vandag het baie meer verantwoordelikhede en pligte as vroeër wat hulle moet baasraak. Dit is belangrik dat die geestelike gesondheid van verpleegsters aandag geniet, veral met die styging van die aantal MIV en VIGS gevalle in Suid-Afrika. Die spanning wat die negatiewe werksomstandighede te weeg bring, maak dit vir verpleegsters moeilik om te hanteer. Dit is daarom belangrik dat verpleegsters leer hoe om hul emosies beter te bestuur om sodoende uitbranding en ontevredenheid te voorkom, asook om hulpbronne beter te benut.

Die doelwit van die navorsing was om die verhouding tussen emosionele intelligensie, werkseienskappe, uitbranding en begeestering binne 'n verpleegomgewing in Suid-Afrika vas te stel. 'n Dwarssneeopname-ontwerp is gebruik in die studie. 'n Niewaarskynlikheidgeskiktheid-steekproefneming is gedoen van die van 511 verpleegsters in hospitale en klinieke in die Gauteng en Noordwes Provinsies. Die Emosionele Intelligensie Skaal, Maslach-uitbrandingsinventaris – Mensedienslewering, Utrecht-werkbegeesteringskaal en Werkseienskappeskaal is gebruik as meetinstrumente in die studie. Die Cronbach-alfakoeffisiënt, die Pearson-produkkorrelasiekoeffisiënt en die Spearman-produkkorrelasiekoeffisiënt is gebruik om die data te ontleed.

Die resultate toon dat positiewe toestand positief verwant is aan lewensvreugde/pligsgetrouheid, professionele doeltreffendheid, emosies van self, emosie van ander en emosionele bestuur. Emosies van self en emosionele bestuur is ook positief verwant aan professionele doeltreffendheid en emosies van ander. Werkslading en kommunikasie moeilikheid is positief verwant aan betaling, emosionele arbeid, werksomgewing en emosionele moegheid. Die resultate toon ook dat emosionele moegheid en geestelike afstand negatief verwant is aan lewensvreugde/pligsgetrouheid terwyl emosionele moegdheid positief verwant is aan geestelike

afstand, werkssekuriteit, en ondersteuning van personeel. Betaling korreleer ook positief met ondersteuning van personeel, terwyl emosionele arbeid ook positief korreleer met werksomgewing. Volgens die voorgestelde gestruktureerde model is daar 'n duidelike pad tussen werkseise en werkshulpbronne; werkseise, emosionele intelligensie en werkwelvaart; werkshulpbronne, emosionele intelligensie en werkwelvaart; werkseise en uitbranding; en werkshulpbronne en werkwelvaart.

Aanbevelings vir die verpleeg professie en vir toekomstige navorsing word gemaak.

CHAPTER 1

INTRODUCTION

This mini-dissertation focuses on the relationship between emotional intelligence, job characteristics, burnout and engagement among nurses in Klerksdorp, Potchefstroom, Krugersdorp, Johannesburg and Pretoria.

This chapter contains the problem statement and a discussion of the research objectives, in which the general objectives and specific objectives are set out. The research method is explained and the division of chapters given.

1.1 PROBLEM STATEMENT

In South Africa, the rapidly changing organisational (Berkman, 1996) and social structures (Altun, 2002) in the health profession make it necessary for nurses to come to terms with the changes and to adapt to it as effectively as possible. Keigher (1997) found that there is a lot of anxiety among nurses because of reform, devolution and multiculturalism in hospitals. Problems with social support and adapting to the new environments occur in the nursing profession (Keigher, 1997).

It is because of these changes and differences that employees in the health profession are at risk of developing work-related psychological disorders (Boeiji, Nievaard, & Casperie, 1996). Stress, strain, burnout and suicide ideation are some of the most studied fields among personnel in hospitals because nursing is one of the occupations that acquire long hours, low salaries and many responsibilities (Altun, 2002). Altun (2002) further states that it is important that nurses are one hundred percent accurate and efficient when carrying out their daily tasks because they are responsible for promoting and maintaining the health of individuals. Studies have shown that nurses expend much energy coping with problems, which arise from the day-to-day care of seriously impaired patients (Boeije, et al., 1996). The problems they encounter include the burden of never ending work, having to cope with deviant and problematic behaviour, handling emotional disturbances and, on a more abstract level, balancing self-interest and power with love and affection (Samuelsson, Gustavsson, Petterson, Arnetz & Asberg, 1997).

The nursing environment is highly associated with occupational stress that can arise from any kind of social arrangements that are partially determined by the modes of organisation of work (Makinen, Kivimaki, Elovaino & Virtanen, 2003). According to Thomas (1992), most studies on the ways in which nursing care and nursing staff are organised in hospital wards have focused on the quality and outcomes of care. There is however, little systematic research on the extent to which modes of organising nursing work are related to stressful characteristics of work (Cooper, 1998). It becomes more important to explore the association between modes of organising nursing work and common stressful characteristics of work such as work overload, interpersonal conflicts at work and too much responsibility (Makinen, Kivimaki, Elovaino & Virtanen, 2003).

Although the relationship between job characteristics and overall performance of employees is not strong, job demands, control and social support appear to have an impact on performance, influencing employees' motivation and effort (Jex, 1998). On the other hand, there is some evidence that poor physical and mental health have a negative impact on employees' performance (Wright & Cropanzano, 2000). Chambel and Curral (2005) assume that job characteristics do not have a direct influence on performance, but rather an influence mediated by individuals' well-being.

South African studies have also found that the working environment of most nurses is characterised by ongoing racism, lack of fair remuneration, disregard for professional worth, non-conductive physical and psychological surroundings, task overload, and long working hours. As a result, nurses experience low performance levels and lack of coping (Pope, 1998; Van Wijk, 1997).

The above makes it evident that there are times when nurses feel stressed and depressed when carrying out their basic tasks. This could be dangerous because it destroys creativity, decreases productivity, lowers the quality of job performance, and increases opportunities for mistakes or acts of poor judgment (Altun, 2002). The emotional health of nurses must be improved to ensure that all nurses can effectively cope with stressful situations in their work environment (Visinti & Campanini, 1996).

In this regard, the management and understanding of emotions (emotional intelligence) can play a vital role. Meyer, Fletcher and Parker (2004) define emotional intelligence as the knowledge of how emotions function in self and others. A combination of dynamic characteristics and skills enable people to understand each other and enhance their relationships. Emotional intelligence is the ability to sense, understand, and effectively apply power and acumen of emotions as a source of human energy, information, connection and influence (Smith, 2002).

While there are long-standing norms about the display of emotion in the work environment, researchers found that emotion management might be related to healthy and constructive behaviour at the workplace (Meyer, Fletcher & Parker, 2004).

According to Barker (1999), emotional intelligence is one aspect that should be widely studied among nurses. When this vital dimension of personal functioning is not adequately addressed, both the patient and the health professional's interests are jeopardised. Emotional intelligence is often the key to good relationships with other people (Carter, 2002).

Emotional intelligence (EQ) is a relatively recent behavioural model, rising to prominence with Daniel Goleman's 1995 book called 'Emotional Intelligence'. Emotional intelligence is becoming increasingly relevant to organisational and people development because the EQ principles provide a new way to understanding and assessing people's behaviours, management styles, attitudes, interpersonal skills, and potential (Goleman, 1996). It can thus be concluded that emotional intelligence is an important consideration in customer relations, customer services, and more.

Carter (2002) identified the following main characteristic and skills of emotional intelligence as applied to the nursing profession:

- *Self-awareness*

Self-awareness is the 'ability to recognise and understand one's own moods, emotions, and drives, as well as their effect on others'. It is important that a nurse comes across as confident and able to make realistic assessments of his/her own strengths and weaknesses, willing to admit mistakes, be able to apologise, and has the ability to laugh at himself/herself.

- *Self-regulation*

Self-regulation is the 'ability to control and redirect disruptive impulses and moods.' Nurses have many responsibilities that can easily lead to stress and anxiety so it is important that nurses stay calm in the midst of a crisis and conflict situations. It is important for nurses to control their own emotions and think before they act.

- *Motivation*

Motivation 'expresses itself as a passion to work for reasons that go beyond money and status.' Nurses work long hours but have to deal also with low salaries. They must seek other sources to help motivate them. Nurses must pursue goals with energy and persistence, seek to exceed expectations, and remain optimistic when faced with challenges.

- *Empathy*

Nurses who exhibit empathy understand the emotional makeup of others. Nurses must be sensitive for the social cultural differences between them and the patients and should care about other's needs.

- *Social skills*

Nurses need to have good social skills to build and manage relationships. It is important for nurses to build rapport and find common ground with patients in order to put them at ease and promote and maintain their health (Altun, 2002).

The first three characteristics determine how well people manage themselves. The last two characteristics determine how well people handle relationships (Smigla & Pastoria, 2000)

Mayer and Salovey (1997) define emotional intelligence as a set of skills hypothesised to contribute to the accurate appraisal and expression of emotion in oneself and in others, the effective regulation of emotion in self and others, and the use of feelings to motivate, plan, and achieve in one's life. They (Mayer & Salovey, 1997) identify the following four emotional abilities:

- *Perception and expression of emotion*

The ability to identify and expresses one's physical states, feelings, and thoughts.

- *Assimilating emotion in thought*

  The ability to distinguish among different emotions, determine whether the emotions are reasonable, and use emotions to prioritise thinking in productive ways.

- *Understand and analyse emotion*

  The ability to label emotions and simultaneous feelings and understand relationships associated with shifts of emotion.

- *Regulation of emotion*

  The ability to discriminate between emotions that are useful or useless in particular situations and accordingly connect or disconnect from the emotion.

Research of Rodriquez (2004) focuses on the emotional demanding aspect of nurses' jobs. Nurses are very aware of the emotional 'work' that they are performing, both in their interaction with patients and colleagues. Most nurses experience their work as invisible, undervalued and highly complex. Sometimes they think they are successful in navigating an emotional maze, but it often feels as if they are emotionally battered (Hunter, 2002). The key ingredient they needed was emotional intelligence.

The possibility of associations between emotional intelligence and health status and health behaviours is an interesting one because of the social situations nurses have to deal with. Given the existence of intrapersonal emotional intelligence subcomponents related to emotion management, it seems reasonable to assume that high emotional intelligence will be associated with better stress management and lower levels of psychological distress (Austin, Saklofske & Egan, 2004). Emotional intelligence has been found to be negatively correlated with psychological distress and depression (Slaski & Cartwright, 2002). Persons with high emotional intelligence are more willing to seek professional and non-professional help for personal-emotional problems, depression and suicide ideation (Ciarrochi & Deane, 2001).

Emotional intelligence is a vital factor in determining one's ability to succeed in life and is said to influence one's psychological well-being and emotional health directly (Bar-On, 1996). Given the situation, nurses with emotional intelligence will move from affiliative

supporter to democratic communicator to counsellor to coach (Goleman, 1996). According to Goleman (1996), people with emotional intelligence are able to increase self-esteem, self-care and work performance. Nurses need emotional intelligence to avoid being dissatisfied with their work as well as for better work engagement. This is also essential for a productive workplace (Smigla & Pastoria, 2000).

According to Stuart and Paquet (2001), nurses with emotional intelligence cope with stress and manage their stress levels easier. Emotional intelligence enables nurses to prevent burnout and other negative ideations (Stuart & Paquet, 2001). Emotional intelligence is a survival dimension of intelligence and is important for daily functioning and managing of emotions (Stuart & Paquet, 2001). Ashkanasy, Haertel and Daus (2002) found that emotional intelligence is negatively related to burnout. Nurses cope easier with burnout if they have emotional intelligence competencies to manage their stress (Meyer, Fletcher and Parker, 2004).

According to Smigla and Pastoria (2000), employee burnout can be extremely expensive for organisations. As turnover escalates, departmental performance suffers, and interdepartmental relationships are damaged. The professional lack of emotional intelligence may alienate colleagues and lead to poor performance.

Burnout occurs for a variety of possible reasons including the discrepancy between the demands of the job and the ability of the nurse to fulfil them (Miller & Bor, 1991). Burnout is a result of chronic occupational stress and occurs in every profession associated with oncology care (Dorz, Novara, Sica & Sanavio, 2003). According to Thornton (1991), burnout can be described as a reference to emotional exhaustion in reaction to pressures at work that result in a negative reaction to stress in the workplace. Freudenburg (1974) coined the concept burnout and defined it as symptoms of emotional depletion and a loss of motivation and commitment among employees.

Burnout usually results after continuing periods of stress (Dorz et al., 2003). Nurses work with stress each day, because of their job demands and responsibilities. It is thus vital for them to manage their stress levels and to learn to cope under prolonged periods of stress. If that can be accomplished, burnout can be prevented (Dorz et al., 2003).

Ceslowitz (1989) described two different factors, which could result in burnout:

- *Personal factors*

  When nurses have unrealistic expectations, low self-esteem, are overcommitted, self-critical, authoritarian, lack a support system and need to control others it can it lead to burnout.

- *Environmental factors*

  Nurses that experience work overload, high patient acuity levels, lack of authority to carry out responsibilities, role conflict, inadequacies in salaries, and head nurse support, as well as a lack of control over hours and working conditions can suffer from burnout.

Not all nurses react to these stressors by experiencing burnout. The ways individuals deal with stress, how they cope, may be as important as the actual stressful conditions they experience (Ceslowitz, 1989). Burnout is the final consequence of stress that has implications for both nurses and patients. Burnout is associated with a lowering of standards of care provided by nurses (Maslach, Jackson & Leiter, 1996). Burnout can lead to high turnover, absenteeism, low morale of nurses, sleep disturbances, and negative relationships with family, colleagues and patients.

Another specific cause of burnout among health professionals is the excessive demands in relation to management of caseloads and problems inhibiting the capacity of nurses to attend to needs of patients adequately (Leiter & Harvie, 1996). According to research (Le Blanc, Bakker, Peeters, Van Heesch & Schaufeli, 2001) among oncology care providers using Karasek's (1979) model, it was concluded that burnout could be moderated if employees used their job resources when confronted with job demands. However, De Rijk, Le Blanc, De Jonge and Schaufeli (1998) found that the relationship between job characteristics and outcomes measures might depend upon workers' individual characteristics. It was found that oncology care providers with low emotional intelligence (high emotional contagion) experienced more burnout when confronted with high emotional job demands and did not have the necessary job resources (Le Blanc, Bakker, Peeters, Van Heesch & Schaufeli, 2001).

The above-mentioned leads to the conclusion that burnout can be related to a lack of emotional intelligence. Nurses need to be aware of their emotions and environment around them. Characteristics, which are vital for nurses with emotional intelligence, are motivation, self-regulation, empathy, self-awareness and people skills. If nurses acquire most of these skills, it is possible for them to manage their stress and prevent burnout (Meier, Back, & Morrison, 2001).

Another consequence of uncontrolled emotion among nurses is the chronic loss of engagement and satisfaction with their work (Meier, Back & Morrison, 2001). There are sometimes an overwhelming feeling of conflict between conscious mandated behaviour (taking care of the patient) and unconscious feelings (when nurses fail with the caring of patients). The consequences of unexamined emotions resulting from the care of seriously ill patients can include physical distress, disengagement, burnout and poor judgement (Yamey & Wilkes, 2001). Studies conducted by Loehr and Groppel (2003) and Yamey and Wilkes (2001) found that there was a positive correlation between emotional awareness and engagement, and a negative correlation between engagement with burnout.

Engagement is a relatively new addition to the occupational field and must be viewed as part of a more general emerging trend towards a 'positive psychology' that focuses on human strengths and optimal functioning rather than on weaknesses and malfunctioning (Seligman & Csikszentmihalyi, 2000).

Recent studies among registered American nurses by Blizzard (2002) found that only 24% of nurses were actively disengaged with their jobs, and only 18% were engaged. Engaged workers are loyal and psychologically committed to the organisation. They are more productive, more likely to stay with their organisation for at least a year, and less likely to have accidents on the job.

Blizzard (2002) identified three types of employees:

- *Engaged*

  Engaged employees work with passion and feel profound connection to their company. They drive innovation and move the organisation forward.

- *Disengaged*

  Disengaged employees are essentially 'checked out.' They are sleepwalking through their workday, putting time – but not energy or passion – into their work.

- *Actively disengaged*

  Actively disengaged employees are not just unhappy at work; they are busy acting out their unhappiness. Every day, these workers undermine what their engaged workers have accomplished.

Blizzard (2002) further defines actively disengaged nurses as physically present but psychologically absent. They are unhappy with their work situations and insist on sharing their unhappiness with their colleagues.

Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002) define engagement as a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption. The three dimensions are discussed further:

- *Vigour*

  Vigour is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties.

- *Dedication*

  Dedication is characterised by a sense of significance, enthusiasm, inspiration, pride, and challenge. It is a person's psychological identification with one's work or one's job. Dedication refers to a particularly strong involvement that goes one-step further than the usual level of identification.

- *Absorption*

  Absorption is characterised by being fully concentrated and deeply engrossed in one's work, whereby time passes quickly and one has difficulty detaching oneself from work.

Engagement is considered antipodes of burnout (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2001). Engagement is characterized by energy, involvement, and efficacy, which are considered the direct opposites of the three burnout dimensions (exhaustion, cynicism and lack of professional efficiency). Engaged employees have a sense of energetic and effective connection with their work activities and they see themselves as able to deal completely with the demands of their job (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2001).

Emotional exhaustion and cynicism are the two dimensions that are considered the core of burnout (Green, Walkey & Taylor, 1991). That is because of exhaustion and cynicism continuous low correlation with the third dimension, professional efficiency (Lee & Ashforth, 1996). Montgomery, Peeters, Schaefeli and Den Ouden (2003) suggest that vigour and dedication of engagement can be viewed as being the opposites of exhaustion and cynicism, respectively.

Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002) concluded in their research that all the burnout and engagement scales are significantly and negatively related. Also in their research findings, as was found by Montgomery, Peeters, Schaefeli and Den Ouden (2003), it was suggested that absorption as well as efficacy may be subsumed under the broader concept of engagement, which consequently leaves only two burnout components, exhaustion and cynicism. Their results agree with the cumulating evidence that points to the divergent role that lack of professional efficacy plays as compared to exhaustion and cynicism.

However, other factors that can have effects on burnout and engagement among nurses must also be studied. According to Le Blanc, Bakker, Peeters, Van Heesch and Schaufeli (2001) it is important that the different types of demands that are potentially stressful within a specific setting have to be considered before starting any study. Moreover, the results from Le Blanc, Bakker, Peeters, Van Heesch and Schaufeli's (2001) study show that the inclusion of individual difference variables that correspond to different types of job characteristics (such as sensitivity to emotional awareness to emotional demands) seems fruitful.

From the research done by Lee (2003) it can be concluded that it is important for nurses to adopt the necessary emotional skills in order to be more organised, attend to important matters, social communication and to be more tolerant. Those that may be unable to cope with their daily activities and work environment can be more vulnerable to burnout. Nurses

who have emotional intelligence have the ability to prevent burnout and to better engaged with their work surroundings. In this study a holistic wellness model - particularly based on the Holistic Wellness Model of Nelson and Simmons (2003) - will be used as references for a proposed wellness model for nurses.

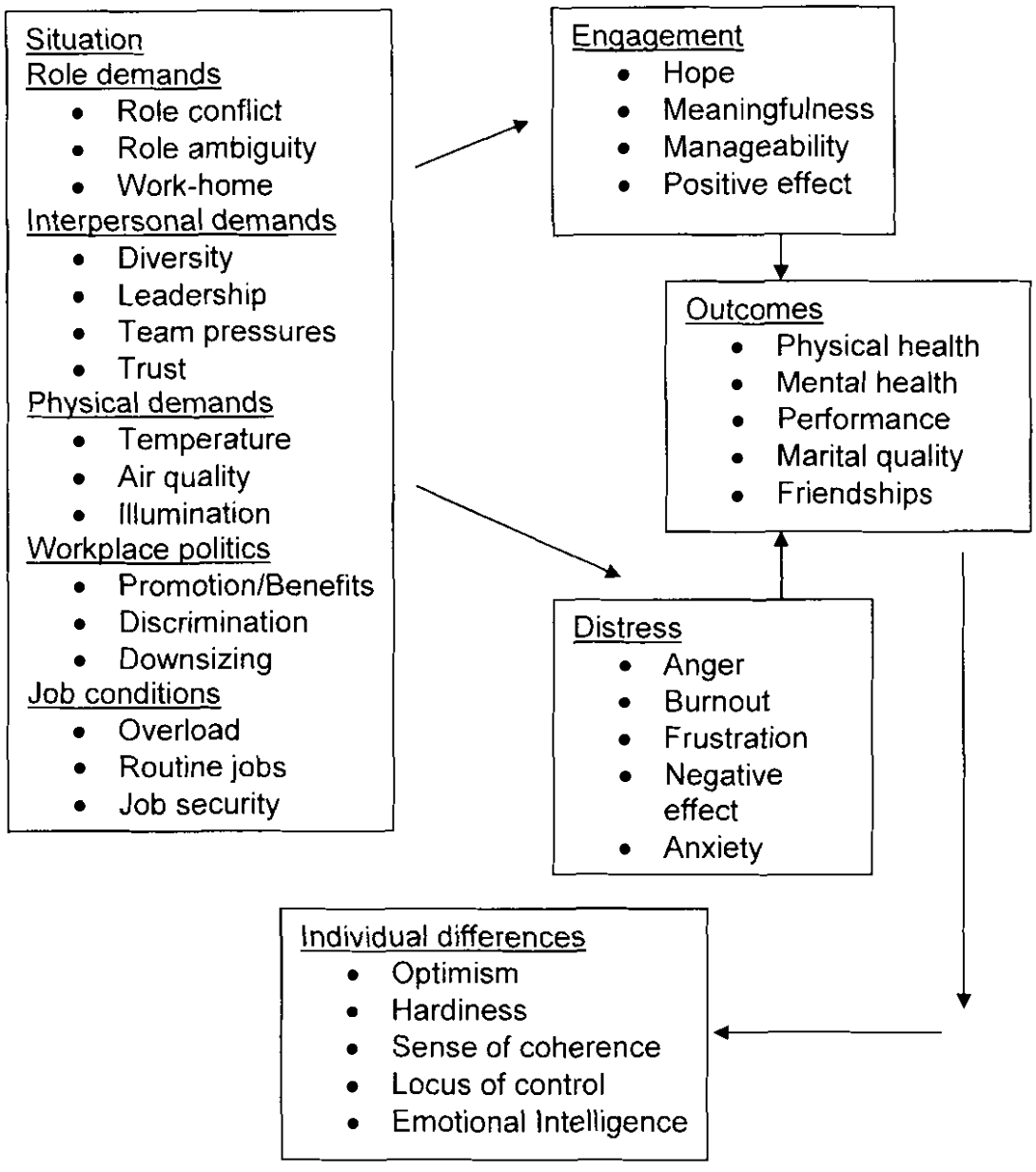

Figure 1: Holistic Wellness Model of Nelson and Simmons

The following research questions emerge from the problem statement:

- How can the relationship between engagement, burnout, job characteristics and emotional intelligence be conceptualised from the literature?
- How valid and reliable are the measures of engagement, burnout, job characteristics and emotional intelligence for nurses in the Gauteng and North-West Provinces?
- What is the relationship between engagement, burnout, job characteristics and emotional intelligence?
- How to develop and test a structural model of work wellness comprising of emotional intelligence, job characteristics, burnout and engagement?
- Which recommendations can be made for future research regarding the wellness of nurses?

1.2 RESEARCH OBJECTIVES

The research objectives consist of general objectives and specific objectives.

1.2.1 General objective

The general objective of this research is to determine the relationship between emotional intelligence, job characteristics, burnout and engagement within the nursing environment in South Africa.

1.2.2 Specific objective

The specific objectives of the research are the following:

- To conceptualise the relationship between engagement, job characteristics, burnout and emotional intelligence by conducting a literature review.
- To determine the validity and reliability of the measures of engagement, burnout, job characteristics and emotional intelligence for nurses in the Gauteng and North-West Provinces.

- To determine the relationship between engagement, burnout, job characteristics and emotional intelligence.
- To develop and test a structural model of work wellness comprising of emotional intelligence, job characteristics, burnout and engagement.
- To determine recommendations for future research regarding the wellness of nurses.

1.3 RESEARCH METHOD

The research method consists of a literature review and an empirical study (quantitative research).

1.3.1 Literature review

The literature review will be conducted by making use of databases such as ERIC, Academic Search Premier, EBSCOHost and Emerald on-line. The results will be used to determine the relationship between the constructs in the form of a research article.

1.3.2 Empirical study

The empirical study will consist of the research design, the study population, the measuring battery and the statistical analysis.

1.3.2.1 Research design

A cross-sectional survey design will be used to collect the data and to attain the research goals. With a cross-sectional design the research is conducted in a short period, which can vary from one day to a few weeks (Du Plooy, 2001). A sample is drawn from a population at a specific time and then one group of people will be observed at a time. This design is also used to assess interrelationships among variables within a population (Shaughnessy & Zechmeister, 1997).

1.3.2.2 Study population

The sample is taken from employees working in a nursing environment. Non-probability samples *(n = 556)* are taken from hospitals in Potchefstroom, Klerksdorp, Pretoria, Johannesburg and the Krugersdorp region.

1.3.2.3 Measuring battery

Four questionnaires are used to measure emotional intelligence, job characteristics, burnout and engagement. A biographical questionnaire is included in order to describe the population.

Emotional Intelligence

Emotional Intelligence Scale (Schutte, Malouff, Hall, Haggerty, Cooper & Golden, 1998) assesses perception, understanding, expression, regulation and the harnessing of emotions in the self and others. The brevity of the scale and its accumulating reliability and validity evidence make this scale a reasonable choice for those who are seeking a brief self-report measure of global emotional intelligence. The model of Emotional Intelligence of Salovey and Mayer (1990) provides the conceptual foundation of the items used in this scale. A factor analysis of a larger pool of items suggested a one-factor solution of 33 items. The 33-item scale, showed good internal reliability with two different samples. The measure also showed evidence of predictive validity, where college students' Emotional Intelligence scores predicted their end-of-the-year grade average. Potential uses of this scale involve exploring the nature of emotional intelligence, the determinants of Emotional Intelligence and the effects there of and whether it can be enhanced (Schutte et al., 1998). A validation study in South Africa indicated a six factor structure with alpha coefficients ranging from 0,54 to 0,73 (Vosloo, 2005).

Burnout

The Maslach Burnout Inventory – Human Services Survey (MBI-HSS) (Maslach & Jackson, 1986) measures respondents' perceived experience of burnout in relation to the recipients of their service, care or treatment. The MBI-HSS consists of 22 items phrased as statements about personal feelings and attitudes, which is self-scored on a seven-point frequency scale, ranging from 0 "never" to 6 "every day". Three subscales can be identified, namely Emotional Exhaustion (EE) (nine items; e.g. "I feel emotionally drained from my work"),

Depersonalisation (Dep) (five items; e.g. "I feel I treat some recipients as if they were impersonal objects"), and Personal Accomplishment (PA) (eight items; e.g. "I have accomplished many worthwhile things in this job"). High scores on Emotional Exhaustion and Depersonalisation and low scores on Personal Accomplishment are indicative of burnout. The subscales represent a related (Emotional Exhaustion and Depersonalisation) and independent (Personal Accomplishment), but separate multidimensional concept of the burnout construct. As such, the psychometric soundness of the MBI-HSS is well-documented in the literature with internal consistencies usually well above the 0,70 Chronbach alpha level, except for the Depersonalisation scale in some samples (Schaufeli, Bakker, Hoogduin, Schaap & Kladler, 2001). Test-retest reliability ranging from three months to one year has been reported in the range of 0,50 to 0,82 (Leiter & Durup, 1996).

Engagement

The *Utrecht Work Engagement Scale* (UWES) (Schaufeli, et al., 2002) is used to measure the levels of work engagement of the participants. The UWES includes three dimensions, namely vigour, dedication and absorption, which is conceptually seen as the opposite of burnout and is scored on a seven-point frequency-rating scale, varying from 0 ("never") to 6 ("every day"). The questionnaire consists of 17 questions and includes questions like "I am bursting with energy every day in my work"; "Time flies when I am at work" and "My job inspires me". The alpha coefficients for the three subscales varied between 0,80 and 0,91. The alpha coefficient could be improved (α varies between 0,78 and 0,89 for the three sub-scales) by eliminating a few items without substantially decreasing the scales internal consistency. Storm and Rothmann (2003) obtained the following alpha coefficients for the UWES in a sample of 2 396 members of the South African Police Service: Vigour: 0,78; Dedication: 0,89; Absorption: 0,78. Coetzer (2004) obtained, the following alpha coefficients: Vigour (0,80); Dedication (0,87), and Absorption (0,69) among a sample of employees in an insurance company.

Job characteristics

Focus groups are used to determine the specific demands and resources that affect the work of nurses. Within the focus groups, specific factors that hinder or help nurses in the execution of their work are identified. After the responses are analysed, the major demands that nurses experienced can be classified as emotional demands, pressure, time related demands and

nurse-specific demands. Resources are identified as autonomy, role clarity and support (including support from colleagues and supervisors as well as financial support from the organisation). The items for pressure, job control and support are derived from existing questionnaires and measured on a 4-item scale ranging from 1 "almost never" to 4 "always". The rest of the items are self-developed or adapted from the Job Characteristics Questionnaire (JCS) Items for *Pressure* are derived from the Job Content Questionnaire (seven items; e.g. "Do you have enough time to get the job done?"). *Autonomy* will be measured by 7 items from the validated questionnaire on experience and evaluation of work (Van Veldhoven, Meijman, Broersen & Fortuin, 1997) (e.g. "Can you take a short break if you feel that it is necessary?"), with higher scores denoting a higher level of autonomy. *Colleague and supervisory support* will be measured with items addressing support from the JCQ (e.g. "Can you count on your colleague when you come across difficulties in your work? ","My supervisor is helpful in getting the job done"), and financial support from the self-developed items (e.g. "Does your job offer you the possibility to progress financially?"). The other demands and resources will be measured using self developed items: emotional demands (nine items; e.g. "Are you confronted in your work with things that affect you emotionally?"), time-specific demands (five items; e.g. "Do you have to work irregular hours?"), nurse-specific demands (six items; e.g. "Do you experience insults from patients or their family?") and role clarity (nine items; e.g. "Do you know exactly what patients expect of you in your work"). All items are scaled on a 4-point scale, ranging from 1 (*never*) to 4 (*always*).

A *biographical questionnaire* is developed to gather information about the demographical characteristics of the participants. Information gathered will include age, gender, race, home language, education, marital status and years employed in current position.

1.3.2.4 Statistical analysis

The statistical analysis is done with the help of the SPSS-programme and the Amos-programme (Arbuckle, 1999). The SPSS-programme is used to carry out statistical analysis regarding reliability, validity, construct equivalence and predictive bias of the measuring instruments, descriptive statistics, t-tests, analysis of variance, correlation coefficients, canonical analysis and moderated multiple regression analysis. The Amos-programme is used to carry out structural equation modelling.

Prior to **principal factor extraction,** principal component extraction is done to estimate the number of factors, the presence of outliers and the factorability of the correlation matrices. Descriptive statistics (means, standard deviations, skewness and kurtosis) are used to describe the data. Cronbach alpha coefficients and inter-item correlations are used to determine the internal consistency, homogeneity and unidimensionality of the measuring instruments (Clark & Watson, 1995).

In terms of statistical significance, it is decided to set the value at a 95% confidence interval level ($p \leq 0,05$). Effect sizes (Steyn, 1999) are used to decide on the practical significance of the findings. Pearson product-moment correlation coefficients are used to specify the relationship between the variables. A cut-off point of 0,30 (medium effect, Cohen, 1988) is set for the practical significance of correlation coefficients.

Covariance analysis or **structural equation modelling** (SEM) methods, as implemented by AMOS (Arbuckle, 1997), are used to construct and test the causal model of work wellness. Hypothesised relationships are tested empirically for goodness-of-fit with the sample data. The χ^2 and several other goodness-of-fit indices summarise the degree of correspondence between the implied and observed covariance matrices. However, because the χ^2 statistic equals $(N-1)F_{min}$ this value tends to be substantial when the model does not hold and the sample size is large (Byrne, 2001). Researchers addressed the χ^2 limitation by developing goodness-of-fit indices that take a more pragmatic approach to the evaluation process.

A value <2 for χ^2/degrees of freedom ratio (CMIN/*df*) (Wheaton, Muthén, Alwin & Summers, 1977) indicates acceptable fit (Tabachnick & Fidell, 2001). The Goodness-of-Fit Index (GFI) indicates the relative amount of variance and co-variance in the sample predicted by the estimates of the population. It usually varies between 0 and 1, and a result of 0,90 or above indicates a good model fit. The Adjusted Goodness-of-Fit Index (AGFI) is a measure of the relative amount of variance accounted for by the model, corrected for the degrees of freedom in the model relative to the number of variables. Both these values are classified as absolute values, because they compare the hypothesised model with no model at all (Hu & Bentler, 1995). Although both indices vary between 0 and 1, the distribution of the AGFI is

unknown, and consequently no critical value can be obtained (Jöreskog & Sörbom, 1986). The Parsimony Goodness-of-Fit Index (PGFI) addresses the issue of parsimony in SEM (Mulaik, James, Van Altine, Bennet, Lindi & Stillwell, 1989). Although this index generally demonstrates lower levels in comparison to the other fit indices at the 0,50 level in comparison to values higher than 0.90, values > 0,80 are considered to more appropriate (Byrne, 2001).

The **Normed Fit Index (NFI)** is used to measure global model fit. The NFI represents the point at which the model being evaluated falls on a scale running from a null model to perfect fit. This index is normed to fall on a 0 to 1 continuum and tends to overestimate fit in smaller samples. The Comparative Fit Index (CFI) also compares the hypothesised and independent models, but takes sample size into account. The Tucker-Lewis Index (TLI) is a relative measure of covariation explained by the hypothesised model, which has been specifically designed for the assessment of factor models (Tucker & Lewis, 1973). Critical values for good model fit have been recommended for the NFI, CFI and TLI to be acceptable above the 0,90 level (Bentler, 1992), although recently Hu and Bentler (1999) recommended a cut-off value of 0,95. The Root Mean Square Error of Approximation (RMSEA) estimates the overall amount of error; it is a function of the fitting function value relative to the degrees of freedom (Brown & Cudeck, 1993). Hu and Bentler (1999) suggested a value of 0,06 to indicate acceptable fit, whereas MacCallum, Browne and Sugawara (1996) recently suggested that values between 0.08 and 1,0 indicate mediocre fit and values above 1,0 poor fit.

1.4 OVERVIEW OF CHAPTERS

In Chapter 2 the relationship between emotional intelligence, job characteristics, burnout and engagement are discussed. Chapter 3 will deal with the conclusions, limitations and recommendations of this study.

1.5 CHAPTER SUMMARY

This chapter discussed the problem statement and research objectives. The measuring instruments and research method used in this research were explained, followed by a brief overview of the chapters that follow.

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JOB CHARACTERISTICS, EMOTIONAL INTELLIGENCE AND WELLNESS IN A NURSING ENVIRONMENT

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ABSTRACT

The objective of this research was to investigate the correlations between emotional intelligence, job characteristics, burnout and engagement among nurses in the Gauteng- and North-West Provinces. A cross-sectional survey design was used. A non-probability convenience sample (n=511) was taken from hospitals and clinics in the Gauteng-and North-West Provinces. The Emotional Intelligence Scale, Maslach Burnout Inventory – Human Services, Utrecht Work Engagement Scale and Work Evaluation Scale were used as measuring instruments. The results showed that positive state is positively related to vigour/dedication, professional efficacy, own emotions, emotions: other and emotional management. Own emotions and emotional management also correlated positively with professional efficacy and emotions: other. Workload is positively related to payment, emotional labour, staff support, work environment, communication demands and emotional exhaustion. The results also identified emotional exhaustion to be positively related to mental distance, job security, and staff support and negative related to vigour/dedication. The proposed structural model show that there are clear paths between job demands, job resources, emotional intelligence and work wellness.

OPSOMMING

Die doelwit van die navorsing was om die verhouding tussen emosionele intelligensie, werkseienskappe, uitbranding en begeestering binne 'n verpleegomgewing in Suid-Afrika vas te stel. 'n Dwarssneeopname-ontwerp is gebruik in die studie. 'n Niewaarskynlikheidbeskikbaarheid-steekproefneming (n=511) is geneem uit hospitale en klinieke in die Gauteng- en Noordwes Provinsies. Die Emosionele Intelligensie Skaal, Maslach-Uibrandinginventaris – Mensedienslewering, Utrecht-Werksbegeesteringskaal en Werkevaluasieskaal is as meetinstrumente in die studie gebruik. Die resultate toon dat positiewe toestand positief verwant is aan lewensvreugde/pligsgetrouheid, professionele doeltreffendheid, emosies van self, emosies van ander en emosionele bestuur. Emosies van self en emosionele bestuur is ook positief verwant aan professionele doeltreffendheid en emosies van ander. Werkslading is positief verwant aan betaling, emosionele arbeid, ondersteuning van personeel, werksomgewing, kommunikasie moeilikheid, en emosionele moegheid. Die resultate toon ook dat emosionele moegheid positief verwant is aan geestelike afstand, werkssekuriteit, en ondersteuning van personeel en negatief verwant aan lewensvreugde/pligsgetrouheid. Volgens die voorgestelde gestruktureerde model is daar 'n duidelike pad tussen werkseise, werkshulpbronne, emosionele intelligensie en werkwelvaart.

In the late 1990's the organisation of care changed dramatically from being target centred to patient care centred because of economic and social developments (LeBlanc, Bakker, Peeters, Van Heesch & Schaufeli, 2001), which meant a closer relationship between the patient and the nurse (Begat & Severinsson, 2001). This closeness also meant that there were limited opportunities for nurses to remain untouched by the patient's life. In South Africa the growing number of HIV-positive patients contributes to negative feelings like stress and depression which may ultimately be fatal for the emotional health of the nurses working closely with such patients (Visinti & Campanini, 1996). According to Cherniss (1995), it is becoming more important for nurses to use more complex cognitive skills such as accuracy and rapid decision-making and to display 'consumer friendly' attitudes in ways that may be in conflict with the expression of their genuine feelings.

It is because of these changes from the last decade that research is now beginning to focus on understanding the causes and effects of emotions at work (Weiss & Cropanzano, 1996). According to LeBlanc, Bakker, Peeters, Van Heesch and Schaufeli (2001), there are many causes for negative emotions like stress and depression.

Oginska-Bulik (2005) concluded that nurses' stress was caused because of the patients' behaviour (like being demanding or aggressive) and complaints from patients. Other causes that contributed to stress were the work conditions, poor social relations, lack of social support and rewards, work overload and routine. All these factors could contribute to negative emotions at work. Oginska-Bulik (2005) further stated that care-giving work was evidently linked with the experiencing of emotions (emotional intelligence).

In the studies done by Oginska-Bulik (2005) it was concluded that nurses with high emotional intelligence did not suffer from negative health consequences like stress, depression or burnout, but people with lower emotional intelligence were more prone to develop such emotions. According to Pau, Croucher, Sohanpal, Muirhead and Seymour (2004), persons with high levels of emotional intelligence are more likely to 'adopt reflection and appraisal, social, organisational and time-management skills.' Humpel, Caputti and Martin (2001) found that male nurses with high emotional intelligence were more conscious about their capabilities and focused more on their effectiveness at work. They also discovered that female nurses' stress levels had more effect on their emotions experienced at work.

LeBlanc, Bakker, Peeters, Van Heesch and Schaufeli (2001) discovered in their study among oncology care providers that it was important to look at the emotional demands of nurses that work with very terminally ill patients in order to measure their job stress and overall well-being. There is a direct link between emotional job demands, burnout and emotional contagion according to LeBlanc, Bakker, Peeters, Van Heesch and Schaefeli (2001).

Makinen, Kivimaki, Elovainio and Virtanen's (2003) findings indicate that organisation of nursing work is not independent of job characteristics. In research done by Elovainio, Makela, Kivimaki, Eccles and Kahan (2000) it was found that people with jobs that were autonomous and meaningful, whose job offered enough challenge and feedback, would have more energy and resources to develop their jobs and therefore have more positive attitudes towards working tools.

De Lange, Taris, Kompier, Houtmans and Bongers (2004) found in their research a causal relationship between job characteristics and mental health. It means that job demands, job resources, job control and the social support of nurses can help develop or break down their overall mental health. The changes that care givers went through the last decade also caused a shift in job characteristics. It seems that persons with high coping capacity adapt better with these changes in job characteristics (De Lange, et al., 2004) because of the more emotional demands that nurses must endure.

Fletcher (2003) claims that satisfied and emotional competent nurses' perceptions of their job characteristics are rosier. This means they will perceive more job control and use their job resources like social support and over time and be more engaged towards their work. Unfortunately the emotional demands that nurses come across in their line of work lead them to perceive their work environment more negatively and can in time lead to burnout (Fletcher, 2003).

It was discovered that the high correlation between a negative work environment and burnout (Samuelsson, Gustavsson, Petterson, Arnetz & Asberg, 1997) was also because of the high levels of stress nurses had to endure daily when performing their responsibilities. If nurses continue to work in their current environment without their stress levels being managed, burnout will result (Gillespie & Melby, 2003).

The emergence of HIV infection has added new stress factors for nurses, principally related to their relationship with HIV patients, safe working practices and fear of contagion (Visintini & Campanini, 1996), feelings of impotence caused by limited medical treatment, stigma related to the transgressive behaviour of infected patients (Miller, 1991), the young age of patients, and over identification with them (Visintini & Campanini, 1996). Nurses that lose sight of their role and who are distressed can turn empathy (which is an adequate emotional distance) into identification with patients (Visintini & Campanini, 1996). Cherniss (1980) suggested that burnout should be considered as a defensive detachment from stressful over-involved relationships, which help re-establish suitable relationships.

These detachments of nurses towards their emotional responsibilities can also lead to disengagement with their work. Engagement is defined as the opposite experience of burnout and their scales are negatively related (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2001). Engaged workers are more loyal, psychological committed and more productive towards their organisations (Blizzard, 2002).

Research conducted by Blizzard (2002) found that nurses have the lowest engagement levels of any category of workers. Nearly 25% of nurses are currently actively disengaged, because they are unhappy with their work situations and insist on sharing their unhappiness with their colleagues. Nurses experience their work as emotionally demanding, invisible, undervalued and highly complex which also lead to higher levels of disengagement towards their work (Rodriquez, 2004). Loehr and Groppel (2004) and Rodriquez (2004) suggest emotional intelligence to overcome these emotional demands of nursing work.

From the discussion above it can be established that emotional intelligence can be a way for nurses to deal with the increasing emotional demands of their work, to prevent burnout and to be more engaged towards their work. The objective of this study is to determine the relationship between emotional intelligence, job characteristics, burnout and engagement within the nursing environment in South Africa.

Emotional intelligence, job characteristics, burnout and engagement

Emotional intelligence is a concept which was made popular by Goleman (1995) with the publication of his influential book *Emotional Intelligence* which fuelled widespread interest

in psychological research in recent years (Nikolaou & Tsaousis, 2002). According to Smigla and Pastoria (2000), emotional intelligence can be learned and is not genetically fixed and can increase with maturity. Mayer, Caruso and Salovey (2000) conceptualise emotional intelligence as 'an ability to recognise the meanings of emotions and their relationships, and to reason and problem-solve on the basis of them. Emotional intelligence is involved in the capacity to perceive emotions, assimilate emotion-related feelings, understand the information of those emotions, and manage them'.

According to Nikolaou and Tsaousis (2002), there seem to be two approaches in studying Emotional intelligence:

- **Information-processing emotional intelligence**
  Mayer, Caruso and Salovey (2000) argued that emotional intelligence described abilities, and they used performance tests, such as the Mayer-Salovey-Caruso Emotional Intelligence Test to measure it.
- **Trait emotional intelligence**
  Goleman (1995) and Bar-On (1997) argued that all emotional intelligence abilities involved some degree of skill in the affective domain, along with skill in whatever cognitive elements were also at play in each ability, and they used self-report measures, such as the Bar-On Emotional Quotient Inventory (EQ-i) to measure it.

These two models do not necessarily contradict one another, but it seems that they do take somewhat different perspectives on the nature of emotional intelligence (Nikolaou & Tsaousis, 2002).

Mayer, Caruso and Salovey (2000) identified the following four branches of emotional intelligence:

- **Emotional perception**
  The ability to register, attend to and decipher emotional messages as they are expressed in a variety of contexts including facial expressions, tone of voice and acting. The person can quickly detect facial expressions of irritability and can therefore better manage a potentially conflicting social situation.

- **Emotional integration**

  The ability to access and generate feelings which facilitate thought. Their emotions can facilitate thought by giving information about their mood state. Thus, people skilled in emotional integration are more likely to view things from an optimistic perspective when happy, a pessimistic perspective when sad and a threat-perspective when anxious or angry.

- **Emotional understanding**

  The ability to comprehend the implications of emotions. Persons can understand how one emotion leads to another, how emotions change over time, and how the temporal patterning of emotions can affect relationships.

- **Emotional Management**

  The ability to regulate emotions, to choose to be open to experiencing emotions and to control the way in which these are expressed. A person with well-developed emotional management abilities has the option of choosing to experience emotions, or blocking the experience.

Mayer, Caruso, Salovey, Formica and Woolery (2000) found in their study that there are negative correlations between emotional intelligence and trouble-prone behaviour and also that emotional intelligence is an important factor in determining psychological health. According to Smigla and Pastoria (2000), emotional intelligence is essential to a productive workplace. It is not only being nice to others, but also confronting them in the most constructive way when a problem exists. It does not mean a free reign for feelings; instead, the idea is to be in control of one's emotions (Smigla & Pastoria, 2000).

Nursing is a complex profession requiring professional nurses to interact with a variety of individuals including professional colleagues, clients, and families in a high-stress environment (Reeves, 2005). Emotional intelligence matters more as the complexity of the work increases (Goleman, 1998). Emotional intelligence allows nurses to develop counselling relationships, care for patients and their families, and manage stress (Cadman & Brewer, 2001).

In a study of cardiac patients by Goleman (1998), those cared for by nurses suffering from depression, were four times more likely to die than those cared for by nurses without

depressed moods. It is thus evident that moods of nurses can be transmitted to patients and it can also influence their health. Nurses must not only manage the emotions of their patients, they must also manage their own emotions to prevent transmitting negative emotions to their patients. The nurses must be able to assess and intervene when confronted with sensitive issues of depression, drug and alcohol use, and family problems. According to Reeves (2005), nurses must have the ability to juggle complex issues of safety, wellness, injury, and illness along with the bureaucracy of the multinational race that requires both cognitive and emotional intelligence. Emotional intelligence skills like empathic listening, awareness of others, and influence are key factors nurses must possess in order to manage their and other's emotions (Reeves, 2005).

Rodriquez (2004) also found in her research among midwifes that most of them experienced nursing work as emotionally demanding. They were very aware of the emotional work that they carried out, both in interacting with their patients, as well as with colleagues. Kalliath, O'Driscoll, Gillespie and Bluedorn (2000) state that it clearly becomes evident that nurses must become more skilled in dealing with emotions in the workplace, because it will be to their benefit to deal with the emotional problems intelligently, rather than just ignoring it. The nursing profession, as with most other health professions, aims to ensure that nurses are intellectually competent as well as competent in nursing skills (Humpel, Caputi & Martin, 2001). Bellack (1999) states that graduating nurses lack many of the emotional and social competencies that are needed for success and effective performance in what is currently a chaotic and stressful work environment.

Slaski and Cartwright (2003) emphasise the subjective nature of stress, saying that the role of individual differences are more important in understanding why some people cope and thrive better than others when exposed to similar circumstances. In previous studies done by Slaski and Cartwright (2002) among retail managers it was found that individuals with high emotional intelligence scores, experienced less stress, had significantly better levels of health and well-being and performed better than others.

It is thus important to manage these stress factors to prevent burnout from taking place. According to LeBlanc, Bakker, Peeters, Van Heesch and Schaufeli (2001), stress reactions can be expressed in different ways, e.g. physically, behaviourally, and psychologically. Moreover, stress reactions can differ in their intensity, and prolonged exposure to stressful

stimuli can lead to burnout (LeBlanc, De Jonge & Schaufeli, 2000). Schaufeli and Enzmann (1998) discovered in their studies that burnout occured in most occupations, but especially among human service workers. Cherniss (1980) define burnout as loss of motivation in work, responsive to excessive engagement, dissatisfaction, psychological withdrawal and emotional exhaustion. Maslach and Jackson (1986) describe burnout 'as being a syndrome including emotional exhaustion, feelings of depersonalisation and feelings of low personal accomplishment.

Three dimensions of burnout can be distinguished according to Maslach (1982). As a result of high emotional demands in the interpersonal relationships with patients, nurses may feel **emotional exhausted**, that is, emotionally overextended and drained by their interactions with other people. To cope with these feelings of exhaustion, nurses will try to protect themselves by detaching from their recipients, that is, by treating them in an indifferent and cynical way. This detachment attitude towards patients is called **depersonalisation**. As a result from this attitude, nurses are unable to perform adequately and the quality of their care will deteriorate. This will in turn lead to a decline in their feelings of **personal accomplishment**, or professional efficacy.

Burnout is most likely to occur in people who feel overworked and unappreciated (Altun, 2002). Gillespie and Melby (2003) found that nurses in acute medicine fields had high emotional exhaustion, experienced depersonalisation and had low levels of personal accomplishment. Visintini and Campanini (1996) suggested a burnout model as a process composed of three stages:

- **Stress** – A counter-position between high expectations and low coping skills in nurses. Nurses may begin to feel stress when they are unable to balance their job resources with their job demands.
- **Nervous tension** – Nurses may experience emotional exhaustion because of the emotional demands.
- **Defensive conclusion** – Nurses may try to regain a safe distance from stress by using defensive behaviour.

According to Visintini and Campinini (1996), the intrinsic dimensions of nurses' stress are because of over-involvement and over-identification with patients. Rodriquez (2004) however states that nurses with emotional intelligence will be able to manage their relationships with their patients better, and therefore burnout can be prevented. It is therefore, important not to view burnout as a symptom of work stress, but as the result of unmanaged work stress (Altun, 2002).

When workloads are too heavy and demands are too great, nursing care suffers and ideals clash head on with reality (Altun, 2002). A high workload in combination with a shortage of relevant resources has been reported as the main source of stress for nurses (Healy & McKay (2000). According to Altun (2002), this lack of job resources has an impact on the burnout levels of nurses. Job resources of nurses include social support from colleagues, or doctors, feedback, rewards, information. When nurses lack these resources, coupled with their emotional demands at work, they may experience burnout.

Bakker, Schaufeli, Sixma, Bosveld and Van Dierendonck (2000) found that high levels of emotional exhaustion and depersonalisation were associated with a higher frequency and intensity of job demands. Leiter and Durup (1996) found a reversed relationship between emotional exhaustion on the one hand and work overload and supervisor support on the other hand. Several studies on nurses have shown a positive correlation between job demands and mental exhaustion (Hertting, Nilsson, Theorell & Satterlund Larsson, 2004). These studies also validate findings on the perceived imbalance between efforts and rewards in relation to burnout syndrome (Bakker, Killmer, Siegrist and Schaufeli, 2000).

According to Altun (2002), nurses must try to understand the concept of self-awareness in order to perceive their attitudes, emotions and behaviours, because they hold and act on significant values. Once nurses are aware of these values, they are capable of accepting patients' and work-colleagues' attitudes and behaviours, and their ability to solve problems and make decisions will become enhanced. Therefore emotional intelligence is the ideal way to be aware of personal beliefs, values, cultural differences and biases to help avoid ineffective communication in stressful situations, to cope with the daily job demands and to use the job resources more effectively (Altun, 2002).

It can be established that nursing work can have a positive outcome when conducting daily tasks. According to Schaufeli, Salanova, Gonzalez-Roma and Bakker (2001), the focus must shift from the negative pole (burnout) towards the more positive pole (engagement). Seen from this perspective burnout must be rephrased as an erosion of engagement within the job. To date, relatively little attention has been paid to concepts that may be considered antipodes of burnout. Maslach and Leiter (1997) assume that engagement is characterised by energy, involvement, and efficacy which are considered the direct opposite of the three burnout dimensions exhaustion, depersonalisation and lack of personal accomplishment. Engaged employees have a sense of energetic and effective connection with their work activities and they see themselves as able to deal with the demands of the job completely (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2001). Hence, engagement is defined by Schaufeli, Salanova, Gonzalez-Roman and Bakker (2001) as 'a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event individual or behaviour.' The three dimensions are described as follows:

- **Vigour** is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties.
- **Dedication** is characterised by a sense of significance, enthusiasm, inspiration, pride, and challenge.
- **Absorption** is characterised by being fully concentrated and deeply engrossed in one's work, whereby time passes quickly and one has difficulties with detaching from work.

Since engagement is defined as the opposite experience of burnout and both are seen as multidimensional, it is expected that there will be a negative relationship between exhaustion and vigour, and between depersonalisation and dedication (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2001).

Maslach and Leiter (1997) suggested that burnout and engagement will show strong correlation. Absorption and professional efficacy seem to be less related than the other

dimensions. These dimensions were thus excluded in a possible model of work wellness within a nursing environment. Further more, within South African studies burnout was found to consist of two factors namely burnout (exhaustion and cynicism combined) and professional efficacy (Coetzer, 2004). In most of these cases professional efficacy tends to load on engagement when put into a model of work wellness.

Loehr and Groppel (2004) ask whether emotional intelligence is important in the full-engagement process. According to Meier, Back and Morrison (2001), disengagement, burnout and dissatisfaction of work are consequences of unexamined emotions, so therefore, emotional intelligence can be vital in engagement towards one's work. According to Kralik, Koch and Wotton (1996), engaged nurses must present themselves as authentic and they must acknowledge the physical, emotional, spiritual and environmental dimensions that surround themselves as well as their patients.

According to research by Crabtree (2005), job control, coupled with job resources, is an ideal way for nurses to experience engagement towards their work. Things like rewards, recognition and social support are important for nurses to prevent burnout and to be more engaged towards their work.

The above-mentioned discussion leads to the hypotheses that nurses with emotional intelligence will manage their stress levels to decrease burnout and to increase engagement towards their work with the help of job resources.

METHOD

Research design

A cross-sectional survey design was used to collect the data and to attain the research goals. With a cross-sectional design the research is conducted in a short period, which can vary from one day to a few weeks (Du Plooy, 2001). A sample is drawn from a population at a specific time and then one group of people will be observed at a time. This design is also used to assess interrelationships among variables within a population (Shaughnessy & Zechmeister, 1997).

Study population

The sample was taken from employees working in a nursing environment. Non-probability samples (*n =556)* were taken from hospitals in Potchefstroom, Klerksdorp, Pretoria, Johannesburg, and the Krugersdorp region.

Table 1

Characteristics of the Study Population (n = 511)

Item	Category	Percentage
Gender	Male	2.30
	Female	96.70
Age	21-25	6.20
	26-35	25.20
	36-45	35.50
	46-55	21.70
	56-65	6.20
Race	White	77.10
	African	14.90
	Coloured	5.70
	Indian	0.60
	Other	0.20
Language	Afrikaans	74.20
	English	10.20
	Sepedi	2.20
	Sesotho	1.20
	Setswana	5.30
	Tshivenda	0.20
	IsiNdebele	0.40
	IsiXhosa	1.20
	IsiZulu	2.00
	Xitsongo	0.20
	Other	0.40
Position	Enrolled auxiliary nurse	20.50
	Enrolled nurse (staff nurse)	12.30
	Registered nurse	49.30
	Unit manager	7.60
	Process manager	0.60
	Nursing services specialist	2.20
	Paramedic	0.20
	Other	5.30
Personnel Area	Klerksdorp	25.00
	Krugersdorp	15.90
	Johannesburg	10.60
	Potchefstroom	11.00
	Pretoria	35.80
	Other	1.20

Table 1 Continue

Characteristics of the Study Population (n = 511)

Item	Category	Percentage
Educational Level	Less than Grade 10	2,20
	Grade 10	9,60
	Grade 11	3,10
	Grade 12	23,70
	Technical College Diploma	15,10
	Technicon diploma	6,10
	University degree	11,70
	Postgraduate degree	9,00
	Other	16,20
	Nursing training	0,20
Years experience	One year and less	9,00
	1-5 years	16,60
	5-10 years	17,30
	10-15 years	13,20
	15-20 years	13,40
	20-25 years	12,50
	25-30 years	9,20
	30-35 years	5,00
	35-40 years	1,60
	40 and more years	1,20
Work Contract	Permanent contract	91,80
	Fixed contract for one year or less	2,90
	Other	2,70
Managerial Position	No	72,60
	Yes	20,50
Working Hours	20-29	1,40
	30-39	5,40
	40-49	84,60
	50-59	0,00
	60 hours and more	3,40

According to Table 1, the majority of the participants were female (96,70%), white (77,10%), have Afrikaans as their home language (74,20%) and were from the Pretoria region (35,80%). Almost half of the participants were registered nurses (49,30%), and only 20,50% of the participants had managerial positions. Only 14,90% of the participants did not possess a Grade 12 Certificate, while 41,90% possessed a Technical College Diploma, Technicon Diploma, University Degree or Postgraduate Degree. The majority of the participants worked 40-49 hours per week (84,60%) and had permanent contracts (91,80%).

Measuring battery

Four questionnaires were used to measure emotional intelligence, job characteristics, burnout and engagement. A biographical questionnaire was included in order to describe the population.

Emotional Intelligence

Emotional Intelligence Scale (Schutte, Malouff, Hall, Haggerty, Cooper & Golden, 1998) assesses perception, understanding, expression, regulation and the harnessing of emotions in the self and others. The brevity of the scale and its accumulating reliability and validity evidence make this scale a reasonable choice for those who are seeking a brief self-report measure of global emotional intelligence. The model of Emotional Intelligence of Salovey and Mayer (1990) provides the conceptual foundation of the items used in this scale. A factor analysis of a larger pool of items suggested a one-factor solution of 33 items. The 33-item scale, showed good internal reliability with two different samples. The measure also showed evidence of predictive validity, where college students' Emotional Intelligence scores predicted their end-of-the-year grade average. Potential uses of this scale involve exploring the nature of emotional intelligence, the determinants of Emotional Intelligence, the effects thereof emotional intelligence and whether it can be enhanced (Schutte et al., 1998). A validation study in South Africa indicated a six factor structure with alpha coefficients ranging from 0,54 to 0,73 (Vosloo, 2005).

Burnout

The Maslach Burnout Inventory – Human Services Survey (MBI-HSS) (Maslach & Jackson, 1986) measures respondents' perceived experience of burnout in relation to the recipients of their service, care or treatment. The MBI-HSS consists of 22 items phrased as statements about personal feelings and attitudes, which is self-scored on a seven-point frequency scale, ranging from 0 "never" to 6 "every day". Three subscales can be identified, namely Emotional Exhaustion (EE) (nine items; e.g. "I feel emotionally drained from my work"), Depersonalisation (Dep) (five items; e.g. "I feel I treat some recipients as if they were impersonal objects"), and Personal Accomplishment (PA) (eight items; e.g. "I have accomplished many worthwhile things in this job"). High scores on Emotional Exhaustion and Depersonalisation and low scores on Personal Accomplishment are indicative of burnout. The subscales represent a related (Emotional Exhaustion and Depersonalisation) and

independent (Personal Accomplishment), but separate multidimensional concept of the burnout construct. As such, the psychometric soundness of the MBI-HSS is well-documented in the literature with internal consistencies usually well above the 0,70 Chronbach alpha level, except for the Depersonalisation scale in some samples (Schaufeli, Bakker, Hoogduin, Schaap & Kladler, 2001). Test-retest reliability ranging from three months to one year has been reported in the range of 0.50 to 0,82 (Leiter & Durup, 1996).

Engagement

The *Utrecht Work Engagement Scale* (UWES) (Schaufeli, et al., 2002) was used to measure the levels of work engagement of the participants. The UWES includes three dimensions, namely vigour, dedication and absorption, which is conceptually seen as the opposite of burnout and is scored on a seven-point frequency-rating scale, varying from 0 ("never") to 6 ("every day"). The questionnaire consists of 17 questions and includes questions like "I am bursting with energy every day in my work"; "Time flies when I am at work" and "My job inspires me". The alpha coefficients for the three subscales varied between 0,80 and 0.91. The alpha coefficient could be improved (α varies between 0.78 and 0,89 for the three sub-scales) by eliminating a few items without substantially decreasing the scales internal consistency. Storm and Rothmann (2003) obtained the following alpha coefficients for the UWES in a sample of 2 396 members of the South African Police Service: Vigour: 0,78; Dedication: 0,89; Absorption: 0,78. Coetzer (2004) obtained the following alpha coefficients: Vigour (0,80); Dedication (0,87), and Absorption (0,69) among a sample of employees in an insurance company.

Job characteristics

Focus groups were used to determine the specific demands and resources that affect the work of nurses. Within the focus groups, specific factors that hinder or help nurses in the execution of their work were identified. After the responses had been analysed, the major demands that nurses experienced could be classified as emotional demands, pressure, time related demands and nurse-specific demands. Resources were identified as autonomy, role clarity and support (including support from colleagues and supervisors as well as financial support from the organisation). The items for pressure, job control and support were derived from existing questionnaires and measured on a 4-item scale ranging from 1 "almost never" to 4 "always". The rest of the items were self-developed or adapted from the Job Characteristics

Questionnaire. Items for *Pressure* were derived from the Job Content Questionnaire (seven items; e.g. "Do you have enough time to get the job done?"). *Autonomy* was measured by 7 items from the validated questionnaire on experience and evaluation of work (Van Veldhoven, Meijman, Broersen & Fortuin, 1997) (e.g. "Can you take a short break if you feel that it is necessary?"), with higher scores denoting a higher level of autonomy. *Colleague and supervisory support* was measured with items addressing support from the JCQ (e.g. "Can you count on your colleague when you come across difficulties in your work? ","My supervisor is helpful in getting the job done"). and financial support from the self developed items (e.g. "Does your job offer you the possibility to progress financially?"). The other demands and resources were measured using self-developed items: emotional demands (nine items; e.g. "Are you confronted in your work with things that affect you emotionally?"), time-specific demands (five items: e.g. "Do you have to work irregular hours?"), nurse-specific demands (six items: e.g. "Do you experience insults from patients or their family?") and role clarity (nine items; e.g. "Do you know exactly what patients expect of you in your work"). All items are scaled on a 4-point scale, ranging from 1 (*never*) to 4 (*always*).

A *biographical questionnaire* was developed to gather information about the demographical characteristics of the participants. Information gathered included age, gender, race, home language, education, marital status and years employed in current position.

Statistical analysis

The statistical analysis was carried out with the help of the SPSS-programme and the Amos-programme (Arbuckle, 1999). The SPSS-programme was used to carry out statistical analysis regarding reliability, validity, construct equivalence and predictive bias of the measuring instruments, descriptive statistics, t-tests, analysis of variance, correlation coefficients, canonical analysis and moderated multiple regression analysis. The Amos-programme was used to carry out structural equation modelling.

Prior to **principal factor extraction,** principal component extraction was done to estimate the number of factors, the presence of outliers and the factorability of the correlation matrices. Descriptive statistics (means, standard deviations, skewness and kurtosis) were used to describe the data. Cronbach alpha coefficients and inter-item correlations were used to

determine the internal consistency, homogeneity and unidimensionality of the measuring instruments (Clarke & Watson, 1995).

In terms of statistical significance, it was decided to set the value at a 95% confidence interval level ($p \leq 0,05$). Effect sizes (Steyn, 1999) were used to decide on the practical significance of the findings. Pearson product-moment correlation coefficients were used to specify the relationship between the variables. A cut-off point of 0,30 (medium effect, Cohen, 1988) was set for the practical significance of correlation coefficients.

Covariance analysis or **structural equation modelling** (SEM) methods, as implemented by AMOS (Arbuckle, 1997), was used to construct and test the causal model of work wellness. Hypothesised relationships were tested empirically for goodness-of-fit with the sample data. The χ^2 and several other goodness-of-fit indices summarise the degree of correspondence between the implied and observed covariance matrices. However, because the χ^2 statistic equals $(N-1)F_{min}$ this value tends to be substantial when the model does not hold and the sample size is large (Byrne, 2001). Researchers addressed the χ^2 limitation by developing goodness-of-fit indices that take a more pragmatic approach to the evaluation process.

A value <2 for χ^2/degrees of freedom ratio (CMIN/*df*) (Wheaton, Muthén, Alwin & Summers, 1977) indicates acceptable fit (Tabachnick & Fidell, 2001). The Goodness-of-Fit Index (GFI) indicates the relative amount of variance and co-variance in the sample predicted by the estimates of the population. It usually varies between 0 and 1, and a result of 0,90 or above indicates a good model fit. The Adjusted Goodness-of-Fit Index (AGFI) was a measure of the relative amount of variance accounted for by the model, corrected for the degrees of freedom in the model relative to the number of variables. Both these values were classified as absolute values, because they compare the hypothesised model with no model at all (Hu & Bentler, 1995). Although both indices vary between 0 and 1, the distribution of the AGFI is unknown, and consequently no critical value can be obtained (Jöreskog & Sörbom, 1986). The Parsimony Goodness-of-Fit Index (PGFI) addresses the issue of parsimony in SEM (Mulaik, James, Van Altine, Bennet, Lindi & Stillwell, 1989). Although this index generally demonstrates lower levels in comparison to the other fit indices at the 0,50 level in comparison to values higher than 0,90, values > 0,80 are considered to more appropriate (Byrne, 2001).

The **Normed Fit Index (NFI)** was used to measure global model fit. The NFI represents the point at which the model being evaluated falls on a scale running from a null model to perfect fit. This index was normed to fall on a 0 to 1 continuum and tends to overestimate fit in smaller samples. The Comparative Fit Index (CFI) also compared the hypothesised and independent models, but took sample size into account. The Tucker-Lewis Index (TLI) was a relative measure of covariation explained by the hypothesised model, which had been specifically designed for the assessment of factor models (Tucker & Lewis, 1973). Critical values for good model fit had been recommended for the NFI, CFI and TLI to be acceptable above the 0,90 level (Bentler, 1992), although recently Hu and Bentler (1999) recommended a cut-off value of 0,95. The Root Mean Square Error of Approximation (RMSEA) estimated the overall amount of error; it was a function of the fitting function value relative to the degrees of freedom (Brown & Cudeck, 1993). Hu and Bentler (1999) suggested a value of 0,06 to indicate acceptable fit, whereas MacCallum, Browne and Sugawara (1996) recently suggested that values between 0,08 and 1,0 indicate mediocre fit and values above 1,0 poor fit.

RESULTS

Principle components extraction was used in an initial run to estimate the number of factors of the Work Evaluation Scale (WES). Ten factors with eigen values larger than one were obtained. The scree plot also indicated a sharp break after the tenth factor. From the eigen values and scree plot it could be established that 51,09% of the total variance was explained. Principle component analysis followed using a direct oblimin rotation to carry out analysis.

The results of the factor analysis on the WES are show in Table 2. Loading of variables on factors, communalities and percentage of variance are shown. Variables are ordered and grouped by size of loading to facilitate interpretation. Labels for each are suggested in a footnote.

Table 2

Factor Loadings, Communalities (h^2), Percentage Variance and Co-Variance for Principle Factor Extraction and Varimax Rotation on Work Evaluation Scale items

Item	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	h^2
1A. Do you have to work very fast?	0,58	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,45
1B. Do you have to work very hard?	0,69	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,51
1C. Do you have enough time to get the job done?	-0,35	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,30
1D. Does you job require long periods of intense concentration on the task?	0,30	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,34
1E. Are you tasks often interrupted before they can be completed?	0,38	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,40
1F. Is your job hectic?	0,49	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,49
1II. Are there sufficient personnel to handle the workload?	0,22	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,55
1IJ. Is there enough staff to do the work?	0,22	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,51
2A. Do you have too much work to do?	0,75	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,68
2B. Do you have work left when you leave work?	0,48	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,52
2C. Are you asked to do an excessive amount of work?	0,67	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,64
2D. Do you find it difficult to complete all your tasks for the day?	0,60	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,58
4A. Can you decide how to carry out your work?	0,00	0,60	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,45
4B. Can you take a short break if you feel it is necessary?	0,00	0,52	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,38
4C. Do you have any influence regarding decisions as to when a piece of work must be completed?	0,00	0,66	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,53
4D. Can you decide how much time you will like to spent on a certain task?	0,00	0,71	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,58
4E. Do you solve problems that arise in your work?	0,00	0,62	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,43
4F. Can you determine the content of your work?	0,00	0,71	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,52
4G. Do you have freedom in carrying out your work activities?	0,00	0,70	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,62
4H. Do you have influence on the planning of your work activities?	0,00	0,70	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,49
10M. Do you have to float to other units that are short of staff?	0,00	0,00	0,31	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,36
11L. Do you have adequate and good quality equipment to do you job?	0,00	0,00	0,33	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,32
11M. Do you think that your organisation pays good salaries?	0,00	0,00	0,86	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,74
11N. Can you live comfortably on you pay?	0,00	0,00	0,85	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,74
11O. Do you think you are paid enough for the work that you do?	0,00	0,00	0,87	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,74
11P. Does you job offer you the possibility to progress financially?	0,00	0,00	0,68	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,51
7. Is you job in danger/ are you insecure in your job?	0,00	0,00	0,00	-0,54	0,00	0,00	0,00	0,00	0,00	0,00	0,35
8A. Do you need to feel more secure that you will still be working in one year's time?	0,00	0,00	0,00	0,92	0,00	0,00	0,00	0,00	0,00	0,00	0,85
8B. Do you need to feel more secure that you will keep your current job in the next year?	0,00	0,00	0,00	0,93	0,00	0,00	0,00	0,00	0,00	0,00	0,87
8C. Do you need to feel more secure that in a year's time you will still have the same function level as currently?	0,00	0,00	0,00	0,91	0,00	0,00	0,00	0,00	0,00	0,00	0,83
3A. Do you receive incompatible requests from two	0,00	0,00	0,00	0,00	-0,40	0,00	0,00	0,00	0,00	0,00	0,35

Table 2 Continue

or more people?											
3B. Do you have to do things in your work, but you do not know if they must be done differently?	0,00	0,00	0,00	0,00	-0,57	0,00	0,00	0,00	0,00	0,00	0,41
3C. Do you have to bend some rules or policies in order to carry out assignments?	0,00	0,00	0,00	0,00	-0,37	0,00	0,00	0,00	0,00	0,00	0,39
3D. Do you have to do things that are accepted by one person and not by others?	0,00	0,00	0,00	0,00	-0,50	0,00	0,00	0,00	0,00	0,00	0,36
3E. Do you receive assignments without adequate resources and materials to execute them?	0,00	0,00	0,00	0,00	-0,39	0,00	0,00	0,00	0,00	0,00	0,42
5A. Do you know exactly what you are responsible for and which areas are not your responsibilities?	0,00	0,00	0,00	0,00	0,75	0,00	0,00	0,00	0,00	0,00	0,59
5B. Do you know exactly what your direct supervisor expects from you in your work?	0,00	0,00	0,00	0,00	0,78	0,00	0,00	0,00	0,00	0,00	0,70
5C. Do you receive sufficient information on the purpose of your work?	0,00	0,00	0,00	0,00	0,73	0,00	0,00	0,00	0,00	0,00	0,63
5D. Do you know exactly what patients expect of you in your work?	0,00	0,00	0,00	0,00	0,42	0,00	0,00	0,00	0,00	0,00	0,30
6A. Are you confronted in your work with things that affect you emotionally?	0,00	0,00	0,00	0,00	0,00	-0,33	0,00	0,00	0,00	0,00	0,32
6C. Do you have to communicate with patients about death?	0,00	0,00	0,00	0,00	0,00	-0,80	0,00	0,00	0,00	0,00	0,67
6D. Does your work put you in emotionally upsetting situations?	0,00	0,00	0,00	0,00	0,00	-0,50	0,00	0,00	0,00	0,00	0,52
6E. Do you have to watch patients suffer?	0,00	0,00	0,00	0,00	0,00	-0,67	0,00	0,00	0,00	0,00	0,55
6F. How often do you experience the death of patients?	0,00	0,00	0,00	0,00	0,00	-0,81	0,00	0,00	0,00	0,00	0,62
6G. Do you have to perform procedures that patients experience as painful?	0,00	0,00	0,00	0,00	0,00	-0,41	0,00	0,00	0,00	0,00	0,36
6H. How often do you have patients that fail to improve?	0,00	0,00	0,00	0,00	0,00	-0,69	0,00	0,00	0,00	0,00	0,53
6I. Do you have to care for the emotional and spiritual needs of patients or their families?	0,00	0,00	0,00	0,00	0,00	-0,56	0,00	0,00	0,00	0,00	0,44
6J. How often do you experience the death of a patient with whom you have developed a close relationship?	0,00	0,00	0,00	0,00	0,00	-0,81	0,00	0,00	0,00	0,00	0,62
9A. Do you have to work overtime?	0,00	0,00	0,00	0,00	0,00	0,00	0,49	0,00	0,00	0,00	0,37
9B. Do you have to work emergency hours?	0,00	0,00	0,00	0,00	0,00	0,00	0,75	0,00	0,00	0,00	0,55
9C. Do you have to work irregular hours?	0,00	0,00	0,00	0,00	0,00	0,00	0,70	0,00	0,00	0,00	0,55
9D. Do you have to work socially undesirable hours?	0,00	0,00	0,00	0,00	0,00	0,00	0,63	0,00	0,00	0,00	0,56
9E. Do you have to spend more time at work that what you are contracted for?	0,00	0,00	0,00	0,00	0,00	0,00	0,70	0,00	0,00	0,00	0,60
11A. Can you count on your colleagues when you come across difficulties in your work?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,56	0,00	0,00	0,54
11B. If necessary, can you ask your colleagues for help?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,63	0,00	0,00	0,53
11C. Does your (direct) superior help you to get the job done?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,81	0,00	0,00	0,67
11D. Do your colleagues help you to get the job done?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,58	0,00	0,00	0,50
11E. Can you count on your supervisor when you come across difficulties in your work?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,84	0,00	0,00	0,72
11F. Do you get on well with your supervisor?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,80	0,00	0,00	0,68
11G. Do you feel appreciated by your supervisor?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,73	0,00	0,00	0,66
11H. Do your fellow workers do their jobs properly?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,44	0,00	0,00	0,48
11K. Are your co-workers motivated to do their	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,37	0,00	0,00	0,43

Table 2 Continue

jobs?											
10E. Do you have to deal with other health care professionals (e.g. dieticians, social workers, pharmacists)?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,30	0,00	0,31
10F. Are there security risks in the area where your job is located?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,58	0,00	0,38
10G. Are there health risks in your job due to contact with patients (e.g. HIV/AIDS, tuberculosis)?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,52	0,00	0,39
10H. Do you have disagreements with medical practitioners or colleagues concerning the treatment of patients?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,28	0,00	0,40
10I. Do you have to deal with crisis situations?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,40	0,00	0,53
10J. Do you have to make critical on-the-spot decisions?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,40	0,00	0,54
10K. Do you experience conflict with other departments/divisions?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,20	0,00	0,40
10N. Do you have to operate specialised equipment?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,59	0,00	0,53
10O. Do you receive adequate information from the medical practitioners regarding the condition of patients?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,41	0,00	0,22
6B. Do you have contact with difficult patients in your work?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,49	0,55
10A. Do you receive insults from patients or their families?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,54	0,46
10B. Do you receive insults from doctors?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,45	0,45
10C. Do you have to deal with difficult patients?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,56	0,59
10D. Do you have to deal with difficult doctors?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,34	0,48
10L. Do you experience language and communication barriers with clients/patients?	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,37	0,28
Percentage variance	15,43	7,59	4,87	4,39	4,23	3,86	3,39	2,65	2,41	2,27	

F1 Workload F2 Task Freedom F3 Payment F4 Job Security F5 Role Clarity/Certainty F6 Emotional Labour F7 Overtime F8 Staff Support F9 Work Environment Experience F10 Communication Demands

The ten extracted factors accounted for 51,09% of the total variance in the data. The cut-off value of 0,30 was set for inclusion of a variable in the interpretation of a factor.

Items loading on the first factor relates to the workload or work-pressures that nurses come across in their line of duty. It deals with, amongst other things, how fast or hard nurses work, and if they finish their work in time, if there is enough staff to handle the workloads, and does the work entail long periods of intense concentration.

The second factor seems to address the freedom of nurses to do their tasks as they wish. It deals with issues like making own decisions regarding aspects of work, managing own time, planning of how the work must be done and the content of work, and solving problems as they arise on their own.

The third factor deals with payment, and includes satisfaction with current salary, if a participant thinks he/she is paid enough and if his/her current position makes it possible to progress financially.

The fourth factor is related to job security. The items loading on this factor include security of current job, and how secure the participant feels in remaining in his/her current job and functional level.

The fifth factor, role certainty and clarity, includes ambiguity of orders/messages given, uncertainty of input and output, staying within barriers when carrying out assignments, do things according to one person's standards, and if the required resources are available in carrying out assignments.

The sixth factor relates to the emotional labour that nurses must endure when caring for patients. Emotional labour is made up by emotionally affected work, talking to patients about death and other emotional situations, dealing with the death of patients or patients that fail to improve and the frequency of these emotional challenges.
Overtime is the seventh factor and the items loading on this factor include working overtime when an emergency occurs, working overtime in general and working hours that are irregular or socially undesirable.

Items loading on the eighth factor are related to getting support from colleagues or staff in general. It deals with how helpful colleagues are when a job gets difficult or support from colleagues in general, support from a supervisor when needed, motivation from colleagues to carry out tasks and the participant's relationships in general with colleagues and supervisors.

Factor nine deals with the work environment. Items include risks in the workplace and when carrying out tasks, dealing with crisis situations, the making of quick decisions, disagreements or conflicts which may arise in the caring of patients and relationships with other medical practitioners.

The last factor, factor ten, addresses the communication demands that can hinder nurses in carrying out their tasks. Items that loaded on this factor include contact with difficult patients

or doctors, receiving insults from patients or doctors and the experiencing of language or communication difficulties when interacting with patients.

A second order factor analysis was performed on the ten factors of WES. Two factors were extracted, explaining 44,22% of the total variance. These two factors were labelled Job Demands (Workload, Overtime, Emotional Labour, Communication Demands, Work Environment, and Role Certainty/Clarity) and Job Resources (Payment, Job Security, Task Freedom, and Staff Support).

Table 3

Descriptive Statistics, Alpha Coefficients of the EQS, WES, MBI-HSS and UWES (n= 511)

Item	**Mean**	**SD**	Skewness	Kurtosis	α
EQS					
Positive State	47,07	7,30	-1,05	2,11	0,85
Own Emotions	40,99	7,36	-1,15	2,44	0,82
Negative Emotions	7,51	3,80	0,13	-0,62	0,58
Emotions: Other	17,18	3,41	-0,39	0,15	0,67
Emotional Management	29,74	6,05	-0,52	0,39	0,79
Work Evaluation					
Workload/Work-pressure	29,35	5,17	0,16	-0,28	0,76
Task Freedom	20,34	4,83	0,16	-0,39	0,82
Payment	19,21	4,60	-0,31	-0,23	0,81
Job Security	8,35	3,20	0,51	-1,01	0,79
Role Certainty/Clarity	23,03	2,86	0,58	2,02	0,43
Emotional Labour	21,26	5,01	0,26	-0,05	0,84
Overtime	10,79	3,58	0,54	-0,14	0,78
Staff Support	18,92	5,67	0,49	0,30	0,86
Work Environment	22,30	4,62	0,13	0,09	0,75
Communication Demands	11,23	2,66	0,59	0,78	0,71
MBI-HSS					
Emotional Exhaustion	15,24	7,21	0,04	-0,69	0,86
Mental Distance	13,59	9,26	-0,89	0,28	0,81
Professional Efficacy	24,05	5,14	0,67	0,07	0,73
UWES					
Absorption	17,26	3,52	-0,31	3,70	0,69
Vigour/Dedication	48,29	11,24	-0,52	0,11	0,80

The scores on the EQS, WES, MBI-HSS, and UWES are distributed normally. The Cronbach alpha coefficients of all the measuring instruments are considered to be acceptable compared to the guidelines of $\alpha > 0,70$ (Nunnally & Bernstein, 1994) except for the alpha coefficients of the following scales: Negative Emotions, Emotions: Other, Role Certainty/Clarity, and Absorption, which are below the accepted 0,70 guideline.

Table 3

Correlation Coefficients between Emotional Intelligence, Job Characteristics, Burnout and Engagement (n= 511)

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Absorption	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Vigour/Dedication	0,08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Workload/Pressure	0,04	-0,10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. Taskfreedom	0,01	0,25	-0,05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Payment	-0,05	-0,21	0,36*	-0,15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Jobsecurity	0,03	0,01	0,08	-0,02	0,00	-			-	-	-	-	-	-	-	-	-	-	-
7. Role certainty/clarity	-0,00	0,07	0,36*	0,14	0,15	0,16	-	-	-	-	-	-	-	-	-	-	-	-	-
8. Emotional Labour	0,06	0,01	0,35*	0,07	0,15	0,09	0,23	-	-	-	-	-	-	-	-	-	-	-	-
9. Overtime	-0,02	-0,09	0,29	0,01	0,17	-0,06	0,18	0,23	-	-	-	-	-	-	-	-	-	-	-
10. Staff Support	0,09	-0,25	0,32*	-0,30	0,35*	0,05	0,12	0,14	0,17	-	-	-	-	-	-	-	-	-	-
11. Work Environment	-0,02	-0,05	0,38*	0,13	0,21	-0,05	0,23	0,47*	0,46*	0,17	-	-	-	-	-	-	-	-	-
12. Communication Demands	-0,01	-0,14	0,42*	-0,03	0,31*	0,06	0,28	0,44*	0,31*	0,25	0,53**	-	-	-	-	-	-	-	-
13. Exhaustion	0,01	-0,30*	0,46*	-0,17	0,37*	0,54**	0,18	0,18	0,24	0,34*	0,25	0,36*	-	-	-	-	-	-	-
14 Professional Efficacy	0,04	0,66**	-0,02	0,25	-0,04	-0,04	0,05	0,00	-0,05	-0,20	0,02	-0,11	-0,11	-	-	-	-	-	-
15. Mental Distance	-0,01	-0,36*	0,28	-0,12	0,22	0,31	0,13	0,14	0,21	0,28	0,16	0,25	0,51**	-0,27	-	-	-	-	-
16. Positive State	0,02	0,40*	0,01	0,23	-0,02	0,02	0,09	0,04	-0,11	-0,16	-0,05	-0,09	-0,15	0,48*	-0,26	-	-	-	-
17. Own Emotions	0,06	0,28	0,00	0,12	-0,03	-0,05	0,03	0,04	0,05	0,13	0,04	-0,17	-0,08	0,37*	-0,25	0,53**	-	-	-
18. Negative Emotions	0,07	-0,04	0,13	-0,00	0,07	0,17	0,12	0,03	-0,07	0,07	0,02	0,13	0,10	-0,08	0,24	-0,12	-0,11	-	-
19. Emotions: Other	0,10	0,23	0,01	0,17	-0,03	0,10	0,10	0,06	0,01	-0,06	-0,02	-0,04	-0,08	0,27	-0,08	0,58**	0,38*	0,04	-
20 Emotional Management	0,08	0,33*	-0,01	0,18	-0,06	0,04	0,06	-0,05	-0,08	-0,16	-0,06	-0,12	-0,16	0,37*	-0,21	0,65**	0,58**	-0,02	0,52**

Table 3 indicates that Vigour and Dedication are negatively correlated with Emotional Exhaustion and Mental Distance (medium effect) and positively correlated with Positive State (medium effect) and Professional Efficacy (large effect). Workload or Pressure is practically significantly related to Payment, Emotional Labour, Staff Support, Work Environment, Communication Demands and Emotional Exhaustion (medium effect). Payment, Emotional Labour and Overtime correlates positively with Communication Demands (medium effect), while Payment is also significantly related to Staff Support (medium effect); and Emotional Labour and Overtime with Work Environment (medium effect). There is a strong correlation between Work Environment and Communication Demands (large effect). Emotional Exhaustion, furthermore, correlates positively with Mental Distance, Job Security (large effect), Staff Support and Communication Demands (medium effect). Professional Efficacy is positively correlated to Positive State, Own Emotions and Emotional Management (medium effect). Positive State is also practically significantly related to Own Emotions, Emotional Management and Emotions: Other (large effect). Own Emotions is positively related to Emotions: Other (medium effect) and Emotional Management (large effect). Emotional Management and Emotions: Other are also positively related (large effect).

A model based on the results of the product-moment correlations, the work wellness model, as well as consensus of findings based on a review of the literature on emotional intelligence, job characteristics and work wellness with specific bearing on the nursing environment was tested with SEM analysis. Results indicated that the model did not fit the data adequately. Inspection of the modification indices (MI) revealed that the fit between the model and the data could be further improved if correlation was allowed between the measurement errors of emotional intelligence and errors of job characteristics. This means that the fit of the proposed model can be improved if the measurement errors of the EIS between E1 (Own Emotions) and E5 (Emotional Management) (MI = 10,09) and E2 (Negative Emotions) and E4 (Other's Emotions) (MI = 9,47), and of the WES between JD4 (Role Certainty/Clarity) and JD6 (Workload/Pressures) (MI = 12,96), JD4 (Role Certainty/Clarity) and JR2 (Job Security) (MI = 12,34), JD4 (Role Certainty/Clarity) and JR1 (Task Freedom) (MI = 10,98), JD5 (Overtime) and JD2 (Work Environment) (MI = 21,44), JD3 (Emotional Labour) and JD2 (Work Environment) (MI = 10,07), JD2 (Work Environment) and JR1 (Task Freedom) (MI = 14,41), and between JD2 (Work Environment) and JD6 (Workload/Pressure) (MI = 15,97) are allowed to correlate. The modification indices of the default model indicating a

good fit were x^2 = 322,48, GFI = 0,93, CFI = 0,91, IFI = 0,91, TLI = 0,89, and GFI = 0,93. The final model is given in Figure 1.

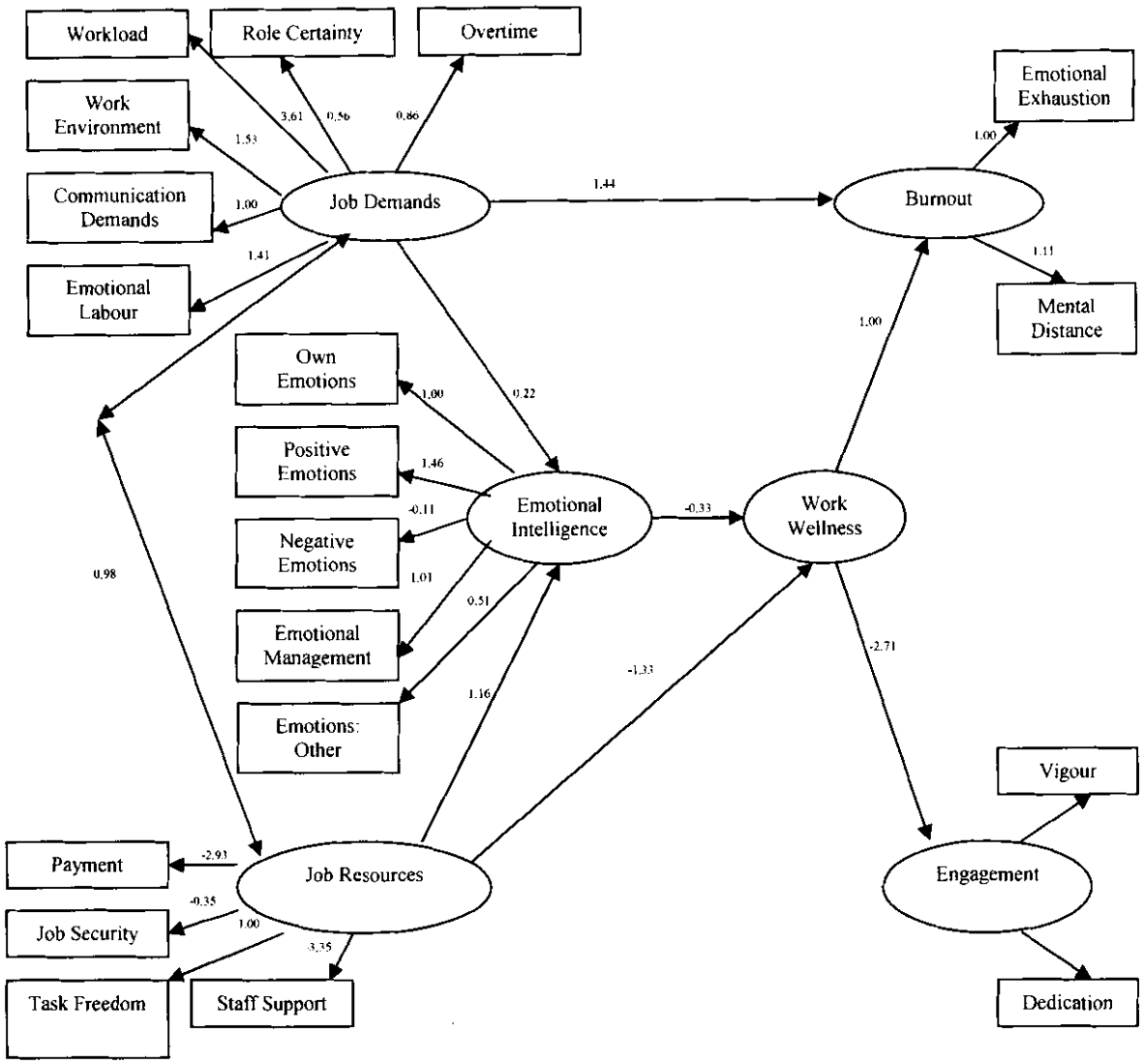

Figure 2: A structural model of Emotional Intelligence, Job Characteristics and Work Wellness

As can be seen in Figure 2, Emotional Intelligence comprises of Positive State, Own Emotions, Emotions: Other, Negative Emotions, and Emotional Management. Work Wellness consists of Burnout (Emotional Exhaustion and Mental Distance) and Engagement (Vigour and Dedication). Job Demands consist of Workload, Overtime, Emotional Labour, Work environment, Communication Demands and Role Certainty/Clarity, while Job Security, Payment, Task Freedom and Staff Support fall under Job Resources.

The path from Work Wellness to Engagement is significant, which means the more Engaged people are towards their work, the less their Burnout levels will be. The path from Job Demands towards Emotional Intelligence and Emotional Intelligence towards Work Wellness is significant, which means that if a person is not Emotionally Intelligent, they will not be able to cope with Job Demands and will be more prone to Burnout and Disengagement, which will ultimately affect Work Wellness. The same path can be seen from Job Resources to Emotional Intelligence and from Emotional Intelligence to Work Wellness. The more Emotionally Intelligent people are, the more will they use their Job Resources to cope with Job Demands, which will ultimately lead to Work Wellness. It is evident that Emotional Intelligence moderates the effects of Job Demands and lack of Job Resources on Work Wellness. The path coefficient between Job Demands and Job Resources is also significant, which leads to the assumption the more the Job Demands are, the more Job Resources are needed to cope with it.

DISCUSSION

The aim of this study was to determine the relationship between emotional intelligence, job characteristics, burnout and engagement within the nursing environment in South Africa. The results indicated:

The Cronbach alpha coefficients of all the measuring instruments were considered to be acceptable compared to the guidelines of $\alpha > 0,70$ (Nunnally & Bernstein, 1994) except for the alpha coefficients of the following scales: negative emotions, emotions: other, role certainty/clarity, and absorption, which were below the accepted 0,70 guideline. The scores on the questionnaires; EIS, WES, MBI-HSS, and UWES, were distributed normally.

The results obtained with the product-moment correlations indicated that positive state or emotions are positively related to vigour, dedication, professional efficacy, own emotions, emotions: other and emotional management. Own emotions and emotional management also correlated positively with professional efficacy and emotions: other. Workload is positively related to payment, emotional labour, staff support, work environment, communication demands and emotional exhaustion, while communication demands is positively related to payment, emotional labour, overtime, work environment and emotional exhaustion. The

results also identified emotional exhaustion to be positively related to mental distance, job security, and staff support and negatively related to vigour and dedication. Mental distance is also negatively related towards vigour and dedication. Payment correlates positively with staff support, while emotional labour and overtime are positively related to work environment.

From the results, it can be established that if people have control over their emotions, recognise emotions, and have strong self-motivation they will be more dedicated and enthused towards their work, and be more motivated to accomplish goals, even if it seems difficult. A person in a positive state of mind is more aware of the emotions around him/her, and finds more constructive ways in dealing with negative energy. According to Cummings, Hayduk and Estabrooks (2005), people with high emotional intelligence reflect the art of hearing their patients' negative feelings yet respond empathetically.

People that know and understand their own emotions, have more empathy for others and what they are going through which is very important in nursing work. If a nurse is unable to manage and regulate his/her own emotions, then it will be harder to have the understanding and knowledge of the emotions of patients as well as what a patient goes through. In the end, the nurse will not be effective as a 'nurturer' and 'care-giver' in the full-sense of the word. These findings are consistent with the meta-analytic approach of Lee and Ashforth (1996) where results support the findings that professional efficacy correlates with emotional intelligence, which enhances the perception that people will be more self-motivated and self-efficient if they can manage their emotions and those of others more constructively.

Nurses can also feel emotionally drained when there is too much work pressure, difficult patients and doctors to deal with, when it is difficult to communicate with patients, and a lack of job security and emotional support from colleagues. All these factors can make it difficult for nurses to deal with emotional exhaustion, so they will try to protect themselves by detaching themselves from their patients or colleagues by treating them in an indifferent and cynical way. Maslach's (1982) findings correlate with the results in saying that people might distance themselves from others when they feel they cannot cope emotionally.

From the results, it can also be established that workload/pressure for nurses will increase when communication is challenging, if they must attend to difficult patients, or patients with

emotional and spiritual needs, coping with crisis and conflict situations and making of quick on-the-spot decisions. Thus, if job demands are high it becomes difficult for employees to allocate their attention and energy efficiently (Bakker, Demoutri and Verbeke, 2004). It may be hard and difficult for nurses to cope with, which may lead to emotional exhaustion, and later on mental distance. The more cynical nurses get the less dedicated and motivated they will be to conduct their daily responsibilities, which will in the end lead to low control and management of own emotions.

Communication difficulties may be hard to deal with, especially when working overtime or long hours, if the work is emotionally challenging (which leads to emotional exhaustion), and when there is a disagreement about the caring of patients with other medical practitioners. Nurses who are not in touch with their own emotions may find it hard to deal with emotionally challenging work. Emotional labour may also increase when nurses must work with other health practitioners (e.g. dieticians, social workers, pharmacists), work under a lot of pressure and make quick decisions, and deal with crisis and conflict situations. All these factors also lead to working overtime, which may depend on the type of crisis situation they have to deal with (e.g. emergencies, etc.). It is thus evident that emotional exhaustion is directly linked to job demands, which correlates with Bakker, Demoutri, De Boer, and Schaufeli's (2003) study, which showed that job demands were the most important predictors of exhaustion.

It also seems that the higher the payment (e.g. salaries) the higher the work pressures are, and thus the more responsibilities nurses have the higher the rewards are. Nurses may feel they are appreciated for the work they do, and that they get the needed support. This will lead to less emotional exhaustion and mental distance, and more vigour and dedication to work. A person will
then be more efficient in his/her work. These results are consistent with Lee and Ashforth's (1996) findings that professional efficacy will lead to higher engagement.

The proposed structural model of emotional intelligence, job characteristics and work wellness showed a clear path between job demands and job resources; job demands, emotional intelligence and work wellness; job resources, emotional intelligence and work wellness; job demands and work wellness; and job resources and work wellness.

It is clear from the model that emotional intelligence comprises of positive state, own emotions, emotions: other, negative emotions, and emotional management. Burnout (emotional exhaustion and mental distance) and engagement (vigour and dedication) make up work wellness. Job demands consist of workload/pressure, overtime, emotional labour, work environment, communication demands and role certainty/clarity, while job security, payment, task freedom and staff support fall under job resources.

The path from work wellness to work engagement is significant, which means the more dedicated and involved nurses are in their work, the less emotionally and mentally drained they will be. In literature, it was found that engagement is the antipode of burnout (Maslach & Leiter, 1997)

The significance of the path from job demands to emotional intelligence and emotional intelligence to work wellness, is that if nurses are unable to understand or manage their or others' emotions, they will not be able to cope with higher work pressures, workloads, complex working conditions, long working hours, and communication hazards. Nurses will then be more prone to emotional exhaustion and mental distance, and disengagement. All these factors can have a negative impact on work wellness if it is not managed correctly. According to Visintini and Campinini (1996), the intrinsic dimensions of nurses' stress are because of over-involvement and over-identification with patients. Rodriquez (2004) however, states that nurses with emotional intelligence will be able to manage their relationships with their patients better, and therefore burnout can be prevented. Meier, Back and Morrison (2001) further state that disengagement, burnout and dissatisfaction with work are consequences of unexamined emotions, so therefore, emotional intelligence can be vital in engagement to one's work. However, if nurses feel all these negative work conditions are worth it, the reason may be that they are so involved and dedicated to their patients, that they are able to cope with emotional demanding work. In past studies, it was evident that engaged employees have a sense of energetic and effective connection with their work activities and they see themselves as able to deal with the demands of the job completely (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2001).

What is evident is that the same path can be seen from job resources to emotional intelligence and from emotional intelligence to work wellness. Nurses that are able to understand and manage their and others' emotions, will be more capable to use emotional support systems,

and will have more job security. This will ultimately lead towards achieving work wellness. This far it is evident that emotional intelligence moderates the effects of job demands and lack of job resources on work wellness. The opposite is also true because, according to Altun (2002), when nurses lack job resources, coupled with their emotional demands at work, they may experience burnout. Leiter and Durup (1996) however, found a reversed relationship between emotional exhaustion on the one hand and supervisor support on the other. Altun (2002) states that people who are able to manage their own emotions are more capable to cope with the daily job demands and to use the job resources more effectively.

The coefficient between job demands and job resources is also significant. It can be assumed that the more the workload, work pressure, emotional demanding work, and working hours, the more support and rewards must be implemented. If a nurse feels that the work he/she is doing is not worthwhile, he/she may be unable to handle to work pressures adequately, which may in the end lead to burnout, and low involvement.

In conclusion it is evident that if nurses do not use there job resources, they will not be able to cope with their job demands constructively, which may in the end lead to burnout and disengagement. Results obtained from Bakker, Demerouti and Verbeke (2004) show that there is a positive correlation between burnout and disengagement. However, nurses with emotional intelligence are more capable of understanding and managing their own and other's emotions, which may make dealing with the complex nursing environment and being more engaged towards their work easier. The more engaged workers are, the more involved and effective they are in conducting their daily responsibilities, and the better they can handle their job demands and use their job resources.

The two dimensions of engagement; vigour and dedication are directly linked to all three determinants of burnout, namely emotional exhaustion, mental distance and professional efficacy. It means the more involved and motivated nurses are the less emotionally drained and cynical they will be which in the end may make them more efficient in carrying out assignments. However, if the work pressure increases, then emotional exhaustion will also increase and that may then lead to mental distance, and ineffectiveness. It is thus evident from the product-moment correlations that there is an indirect link between emotional intelligence, job demands and job resources and a direct link between emotional intelligence, engagement and burnout. Job demands, job resources and burnout are directly linked, while

engagement is indirectly linked to job demands and job resources. However, the proposed model show that there are clear paths between job demands and job resources; job demands, emotional intelligence and work wellness; job resources, emotional intelligence and work wellness; job demands and work wellness; and job resources and work wellness. All these factors are correlated and have an impact on each other.

This study also has some limitations that must be considered. With the use of the cross-sectional design causal inferences could not be drawn, so the causal relationships between the variables were interpreted rather than established. It made it difficult to examine the more complex relationships between the variables. A further limitation of the cross-sectional design was the short period needed to gather information. The study was also conducted on nurses and the results obtained can therefore not be generated to the whole public.

Some of the nurses that completed the questionnaires might have thought that the information would not be kept confidential and that their identity might somehow become known. That could have influenced them in answering the questionnaire inaccurately and untruthfully and that might have had a negative impact on the results obtained. Another hazard is that the questionnaires were only in English so the language gap could also have influenced the results.

RECOMMENDATIONS

Nurses play a vital role in the caring of the ill and sick people of the country. It will be difficult for patients to recover from their illnesses without nurses to take care of them. In South Africa, the declining numbers of nurses in hospitals increase their job responsibilities.

Emotional intelligence interventions directed towards the increase of emotional well-being must also be recommended to hospitals. This intervention must help nurses in developing an understanding of their own and other's emotions and the skills to manage it, and learning how to develop and use emotional skills to manage stress levels as well as coping with emotional demands.

Emotional support can be given by using the services of psychologist in hospitals and clinics where nurses can talk and offload some of the stress and strain associated with their line of

work. Work overload is an important factor that needs attention because it can result in exhaustion. The job demands and job resources must therefore be reconsidered in order to ensure that burnout and disengagement can be excluded.

The nursing profession is an important and vital link to society and to ensure the well-being of nurses, future research must focus more on the determinants that cause burnout. Generating results of emotional intelligence, job characteristics, burnout and engagement among nurses to other occupations can be done if a longitude study is conducted and all levels of nurses are part of the research. A larger sample can be used to enable generalisation of the findings in similar groups. The complex intensity and relationship between the variables can be researched.

Some of the participants had English as a second or third language so there is also a need to translate the questionnaires in other official languages in South Africa so that the participants have the option of completing the questionnaires in their own mother tongue.

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CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

This chapter is comprised of conclusions regarding the literature review and the empirical study according to the specific objectives. The limitations of the research are discussed, followed by recommendations for the research problem in the organisation and lastly, suggestions for future research are made.

3.1 CONCLUSIONS

The first objective of the study was to conceptualise the relationship between engagement, burnout, job characteristics and emotional intelligence. Emotional intelligence is conceptualised as the ability to recognise the underlying meanings of emotions and understanding their relationships, and to use that knowledge for reasoning and problem-solving in everyday life (Mayer, Caruso and Salovey, 2000). Emotional intelligence is involved in the capacity to attend to and decipher emotional messages, to access and generate feelings, to understand the implications of emotions and to regulate and control emotions (Mayer, Caruso and Salovey, 2000). It is important to understand that nursing is a very complex profession, which requires professional nurses to interact with a variety of individuals including professional colleagues, clients, and families in a high-stress environment (Reeves, 2005). Nurses can prevent many negative factors, like burnout and disengagement if they are more emotionally competent, and learn to manage their emotions. Given the existence of intrapersonal emotional intelligence subcomponents related to emotion management, it seems reasonable to assume that high emotional intelligence will be associated with better stress management and lower levels of psychological distress (Austin, Saklofske & Egan, 2004). Other factors that can also contribute to emotional intelligence are job characteristics, coping strategies, engagement and personality factors. This study focused on burnout, engagement and job characteristics.

Burnout is conceptualised as a psychological syndrome in response to low motivation in work, excessive disengagement, dissatisfaction, prolonged periods of stress, psychological withdrawal and emotional exhaustion (Maslach & Jackson, 1986). Maslach (1982) identified three dimensions of burnout: emotional exhaustion, depersonalisation and personal

accomplishment. Emotional exhaustion refers to the depletion or draining of emotional resources and experiencing feelings of overexertion. Depersonalisation refers to being detached from recipients, to being indifferent and cynical. Personal accomplishment refers to perform adequately in a job and to give quality service. According to Altun (2002), burnout usually occurs in nurses when they are overworked or feel unappreciated. These factors can lead to disengagement from work. So it becomes more important to establish engagement in work to prevent burnout from happening.

Engagement seems to be the direct opposite of burnout, and is defined as 'a positive, fulfilling, work-related state of mind' that is characterised by the three dimensions vigour, dedication, and absorption (Schaufeli, Salanova, Gonzalez-Roman & Bakker, 2001). Vigour is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties. Dedication is characterised by a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption is characterised by being fully concentrated and deeply engrossed in one's work, whereby time passes quickly and one has difficulty with detaching oneself from work. It is vital to note that engagement is necessary for nurses to be more productive in their work and because of the emotional work they must cope with daily, it is important that they manage their own and other's emotions. Engagement towards work also depends on what the job entails.

Job characteristics are associated with the performance of specific tasks that make up an individual's job. Job demands and job resources together form the characteristics of a person's job. Job demands are those aspects of the job that require sustained physical and/or mental effort and can have a negative impact on work if not correctly managed (Demerouti, Bakker, Naschieiner & Schaufeli, 2001). Work-overload, time pressures and various task characteristics that are perceived as demanding fall under job demands. The effect of job demands can be minimised if the job resources are intact (Montgomery, Mostert & Jackson, 2003). Job resources are those aspects that an individual can use to cope with job demands and to be more productive. Rewards, supervisor support, and job security make up job resources.

Bakker, Schaufeli, Sixma, Bosveld and Van Dierendonck (2000) found that high levels of emotional exhaustion and depersonalisation were associated with higher frequency and

intensity of job demands. Leiter and Durup (1996) found a reversed relationship between emotional exhaustion on the one hand and work overload and supervisor support on the other. Several studies on nurses have shown a positive correlation between job demands and mental exhaustion (Hetting, Nilsson, Theorell & Satterlund Larsson, 2004). These studies also validate findings on the perceived imbalance between efforts and rewards in relation to burnout syndrome (Bakker, Killmer, Siegrist and Schaufeli, 2000). Crabtree (2005) on the other hand found that job resources are the ideal way to be more engaged towards work and to prevent burnout from happening. It seems that if the rewards systems are in place, recognition is given for hard or good work, and the necessary support systems are intact, then burnout can be prevented, and that can lead to more engaged workers.

From the literature, it is evident that individuals with emotional intelligence experience less stress have significantly better levels of health and well-being and are able to perform better than others (Slaski & Cartwright, 2002). However, if these stress levels are not managed then burnout will occur and that will lead to loss of motivation in work, disengagement, dissatisfaction, psychological withdrawal and emotional exhaustion (Cherniss, 1980). A high workload in combination with a shortage of relevant resources has been reported as the main source of stress for nurses (Healy & McKay (2000).

The second objective of this study was to determine the validity and reliability of the measures of engagement, burnout, job characteristics and emotional intelligence for nurses in the Gauteng and North-West Provinces. According to the descriptive statistics, the scores on the questionnaires, EIS, WES, MBI-HSS and UWES, have a normal distribution. The Cronbach alpha coefficients of all the measuring instruments are considered acceptable when compared to the guidelines of $\alpha > 0,70$ (Nunnally & Bernstein, 1994) except for the alpha coefficients of Negative Emotions, Emotions: Other, Role Certainty/Clarity, and Absorption, which are below the accepted 0,70 guideline. The Cronbach alpha coefficients of the different scales are as follows; EIS: positive state (0,85), own emotions (0,82), negative emotions (0,58), emotions: other (0,67) and emotional management (0,79); WES: workload/pressure (0,76), task freedom (0,82), payment (0,81), job security (0,79), role certainty/clarity (0,43), emotional labour (0,84), overtime (0,78), staff support (0,86), work environment (0,75) and communication demands (0,71); MBI-HSS: emotional exhaustion (0,86), mental distance

(0,81) and professional efficacy (0,73); and UWES: absorption (0,69) and vigour/dedication (0,80).

The third objective was to establish the relationship between engagement, burnout, job characteristics and emotional intelligence. Product-moment correlations indicate that positive state or emotions are positively related to vigour, dedication, professional efficacy, own emotions, emotions: other and emotional management. Own emotions and emotional management also correlate positively with professional efficacy and emotions: other. Workload is positively related to payment, emotional labour, staff support, work environment, communication demands and emotional exhaustion, while communication demands is positively related to payment, emotional labour, overtime, work environment and emotional exhaustion. The results also identified emotional exhaustion to be positively related to mental distance, job security, and staff support and negatively related to vigour and dedication. Mental distance is also negatively related towards vigour and dedication. Payment correlates positively with staff support, while emotional labour and overtime are positively related to work environment.

It is evident from the research that if nurses' have emotional intelligence, that they will be more able to cope with their complex environment, by being more engaged and efficient in their work. People that have control over their emotions, are able to recognise emotions, and have a strong self-motivation will be able to be more dedicated and enthused towards their work, and be more motivated to accomplish goals, even if it seems difficult. People that are committed to their work, will in the end be better equipped to cope with excessive job demands. A person in a positive state of mind is more aware of the emotions around him/her, and will find more constructive ways in dealing with negative energy. According to Cummings, Hayduk and Estabrooks (2005), persons with high emotional intelligence reflect the art of hearing their patients' negative feelings and yet they respond empathetically.

According to the results and findings of Cummings, Hayduk, and Estabrooks (2005), people that know and understand their own emotions, have more empathy for others and what they are going through which is very important in nursing work. Cummings, Hayduk and Estabrooks (2005) further state that if nurses use their emotional skills to understand what patients are feeling, they will be able to built trust through listening, empathy, and responding to concerns. If a nurse is unable to manage and regulate his/her own emotions, then it will be

harder to have a understanding and knowledge of the emotions of patients and what patients go through. In the end the nurse will not be as effective as a 'nurturer' and 'care-giver' in the full-sense of the word. These findings are consistent with the meta-analytic approach of Lee and Ashforth (1996) where results support the findings that professional efficacy correlates with emotional intelligence, which enhances the perception that people will be more self-motivated and self-efficient if they can manage their emotions and those of others more constructively.

Nurses may also feel emotionally exhausted when they are unable to cope with their complex working conditions. Nurses, may for instance, feel emotionally drained when there is too much work pressures, difficult patients and doctors to deal with, when it is difficult to communicate with patients, and a lack of job security and emotional support from colleagues. All these factors can make it difficult for nurses to deal with emotional exhaustion, so they will try to protect themselves by detaching themselves from their patients or colleagues by treating them in an indifferent and cynical way. Maslach's (1982) findings correlate with the results in saying that people might distance themselves from others when they feel they feel they cannot cope emotionally.

It was evident from the results that workload- and pressures for nurses will increase when they find it difficult to communicate or attend to difficult patients, or patients with emotional and spiritual needs, or when they must cope with crisis and conflict situations or make quick on-the-spot decisions. Thus, if job demands are high it becomes difficult for employees to allocate their attention and energy efficiently (Bakker, Demerouti and Verbeke, 2004). It may be hard and difficult for nurses to cope with, which may lead to emotional exhaustion, and later mental distance. These work pressures and emotional demands that nurses come across in their line of work lead them to perceive their work environment more negatively and in time, it can lead to burnout and cynicism (Fletcher, 2003). The more cynical nurses get the less dedicated and motivated they will be to conduct their daily responsibilities, which in the end will lead to low control and management of their emotions.

Nurses also find it hard to communicate with difficult patients, or patients that do not speak the same language as they do which may be hard to deal with, especially when combined with long working hours, emotionally challenging work (which lead to emotional exhaustion), and when there is a disagreement about the caring of patients with other medical

practitioners. Nurses who are not in touch with their own emotions may find it hard to deal with emotionally challenging work. Emotional labour may also increase when nurses must work with other health practitioners (e.g. dieticians, social workers, pharmacists), work under a lot of pressure and make quick decisions, and deal with crisis and conflict situations. All these factors also lead to working overtime, which may depend on the type of crisis situation they have to deal with (e.g. emergencies, etc.). It is thus evident that emotional exhaustion is directly linked to job demands, which correlates with Bakker, Demerouti, De Boer, and Schaufeli's (2003) study, which showed that job demands were the most important predictors of exhaustion.

It also seems that the higher the payment (e.g. salaries) the higher the workloads/pressures are. It almost seems that if the responsibilities of the nurses are high, the more their rewards may be. Nurses may feel they are appreciated for the work they do, and that they receive the needed support. This will lead to less emotional exhaustion and mental distance, and more vigour and dedication to work. Nurses' will then be more efficient in their work. These results are consistent with Lee and Ashforth's (1996) findings that professional efficacy will lead to higher engagement.

The fourth objective was to develop and test a structural model of work wellness comprising of emotional intelligence, job characteristics, burnout and engagement. The proposed structural model of emotional intelligence, job characteristics and work wellness showed a clear path between job demands and job resources; job demands, emotional intelligence and work wellness; job resources, emotional intelligence and work wellness; job demands and work wellness; and job resources and work wellness.

It is clear from the model that emotional intelligence comprises of positive state, own emotions, emotions: other, negative emotions, and emotional management. Burnout (emotional exhaustion and mental distance) and engagement (vigour and dedication) make up work wellness. Job demands consist of workload/pressures, overtime, emotional labour, work environment, communication demands and role certainty/clarity, while job security, payment, task freedom and staff support fall under job resources.

The path from work wellness to engagement is significant, which means the more dedicated and involved nurses are in their work, the less emotionally and mentally drained they will be.

In literature, it was found that engagement is the antipode of burnout (Maslach & Leiter, 1997) and Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002) concluded in their research that all the burnout and engagement scales are significantly and negatively related.

The significance of the path from job demands to emotional intelligence and emotional intelligence to work wellness, is that if nurses are unable to understand or manage their or other's emotions, they will not be able to cope with higher work pressures, workloads, complex working conditions, long working hours, and communication hazards. Nurses will then be more prone to emotional exhaustion and mental distance, and disengagement. All these factors can have a negative impact on work wellness if it is not managed correctly. According to Visintini and Campinini (1996), the intrinsic dimensions of nurses' stress are because of over-involvement and over-identification with patients. Rodriquez (2004) however, states that nurses with emotional intelligence will be able to manage their relationships with their patients better, and therefore burnout can be prevented. Nurses cope easier with burnout if they have emotional intelligence competencies to manage their stress (Meyer, Fletcher and Parker, 2004). Meier, Back and Morrison (2001) further state that disengagement, burnout and dissatisfaction with work are consequences of unexamined emotions, so therefore, emotional intelligence can be vital in engagement to one's work. However, if nurses feel all these negative work conditions are worth it, the reason may be that they are so involved and dedicated to their patients, that they are able to cope with emotional demanding work. In past studies, it was evident that engaged employees have a sense of energetic and effective connection with their work activities and they see themselves as able to deal with the demands of the job completely (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2001).

What is evident is that the same path can be seen from job resources to emotional intelligence and from emotional intelligence to work wellness. Nurses that are able to understand and manage their and other's emotions, will be more capable to use emotional support systems, and will have more job security. This will ultimately lead towards achieving work wellness. This far it is evident that emotional intelligence moderates the effects of job demands and lack of job resources on work wellness. The opposite is also true because, according to Altun (2002), when nurses lack job resources, coupled with their emotional demands at work, they may experience burnout. Leiter and Durup (1996) however, found a reversed relationship between emotional exhaustion on the one hand and supervisor support on the other. Altun

(2002) states that people who are able to manage their own emotions are more capable to cope with the daily job demands and to use the job resources more effectively. De Rijk, Le Blanc, De Jonge and Schaufeli (1998) found that the relationship between job characteristics and outcomes measures depended upon workers' individual characteristics. So it was evident that nurses with low emotional intelligence (high emotional contagion) will experience more burnout when confronted with high emotional job demands and did not have the necessary job resources (Le Blanc, Bakker, Peeters, Van Heesch & Schaufeli, 2001).

The coefficient between job demands and job resources is also significant. It can be assumed that the more the workload, work pressure, emotional demanding work, and working hours, the more support and rewards must be implemented. If a nurse feels that the work she is doing is not worth it, she may not be able to handle to work pressures so adequately, which may in the end lead to burnout, and low involvement.

In conclusion is it evident that when nurses do not use there job resources, they will not be able to cope with their job demands constructively, which may in the end lead to burnout and disengagement. Results obtained from Bakker, Demerouti and Verbeke (2004) also show that there is a positive correlation between burnout and disengagement. However, nurses with emotional intelligence are more capable of understanding and managing their own and other's emotions, which may make dealing with the complex nursing environment and being more engaged to their work easier. The more engaged workers are, the more involved and effective they are in conducting their daily responsibilities, and the better they can handle their job demands and use their job resources.

The two dimensions of engagement; vigour and dedication are directly linked to all three determinants of burnout, namely emotional exhaustion, mental distance and professional efficacy. It means the more involved and motivated nurses are the less emotionally drained and cynical they will be which in the end may make them more efficient in carrying out assignments. However, if the work pressure increases, then emotional exhaustion will also increase and that may lead mental distance, and ineffectiveness. It is thus evident from the product-moment correlations that there is an indirect link between emotional intelligence, job demands and job resources and a direct link between emotional intelligence, engagement and burnout. Job demands, job resources and burnout are directly linked, while engagement is indirectly linked towards job demands and job resources. However, the proposed model show

that there are clear paths between job demands and job resources; job demands, emotional intelligence and work wellness; job resources, emotional intelligence and work wellness; job demands and work wellness; and job resources and work wellness. All these factors are correlated and have an impact on each other.

3.2 LIMITATIONS

This study also has some limitations that must be considered. With the use of the cross-sectional design causal inferences could not be drawn, so the causal relationships between the variables were interpreted rather than established. It made it difficult to examine the more complex relationships between the variables. A further limitation of the cross-sectional design is the short period needed to gather information. If more time was available, it could have been possible to study the inter-correlations between the variables more thoroughly and in depth. Prospective longitudinal studies and quasi-experimental research designs are needed to validate the hypothesised causal relationship further, and thus deal with the limitation set by using a cross-sectional design.

The study was also conducted on nurses and the results obtained can therefore not be generated to the whole public. This research was conducted in a homogenous sample consisting of individuals from a specific profession, namely the nursing profession. It is also important to note that nurses from different clinics and hospitals in the Gauteng- and North-West Provinces were used, so therefore nurses from the West Cape, for example, do not necessarily go through the same emotional disturbances as nurses used in this study.

Some of the nurses that completed the questionnaires might have thought that the information would not be kept confidential and that their identity would become known somehow. That could have influenced them to answer the questionnaire inaccurately and untruthfully and could have had a negative impact on the results obtained. They could have answered the questions in such a way that it seemed that some variables did not have an impact on their performance, although it could have played some part.

Another hazard is that the questionnaires were only in English so the language gap could also have influenced the results. With the multi-cultural differences in South Africa it is important

that every culture's needs be met. Some of the participants might not have understood some questions and interpreted it wrongly.

3.3 RECOMMENDATIONS

The following recommendations are made to the profession as well as for future research in South Africa.

3.3.1 Recommendations for the profession

Nurses play a vital role in the caring for the ill and sick people of the country. It will be difficult for patients to recover from their illnesses without the help of nurses to take care of them. Nurses must therefore be cherished and it is vital that their psychological state is monitored to identify signs of burnout earlier. In South Africa with the declining numbers of nurses in hospitals, the job responsibilities of nurses increased. This extra workload can lead to burnout.

Emotional intelligence seems vital for managing stress levels so the results of burnout, disengagement, job demands, and lack of job resources make it evident that nurses with lower emotional intelligence must be targeted for intervention to help them develop emotional strategies for managing their own work stressors. The intervention must therefore be aimed at increasing emotional well-being. A training programme can be developed where nurses learn how to deal with emotions, and the emotions of others' and how to use these skills to enhance engagement and make better use of job resources. The training programme must focus on identifying symptoms of burnout and disengagement in self and others. Findings by Cummings, Hayduk and Estabrooks (2005) suggest that by investing energy in relationships with nurses; will equip nurses to positively affect the health and well-being of their colleagues and patients.

Emotional support can be given by using the services of psychologist at hospitals and clinics where nurses can talk and offload some of the stress and strain associated with their line of work. Work overload is an important factor that needs attention because it can result in exhaustion. Job characteristics, like low payment, lack of staff support, task freedom and job

security, emotional demands, long working hours, and work pressures must therefore be reconsidered to ensure that burnout and disengagement can be excluded.

3.3.2 Recommendations for future research

The nursing profession is an important and vital link to society and to ensure the well-being of nurses future research must focus more on the determinants that cause burnout and disengagement. Generating results of emotional intelligence, job characteristics, burnout and engagement among nurses to other occupations can be done if a longitudinal study is conducted and all levels of nurses are part of the research. The complex intensity and relationship between the variables can be researched.

It can also be recommended that larger samples with a more powerful sampling method be used to enable generalisation of the findings to other similar groups.

Some of the participants had English as a second or third language so there is also a need to translate the questionnaires in other official languages in South Africa so that the participants have more understanding and knowledge about the content and meaning of the questions.

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